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COUNTY BOROUGH OF SOUTH SHIELDS.

ANNUAL HEALTH REPORT,

1912.

D. MORLEY MATHIESON,

M.A., M.D., CH.B., D.P.H.

MEDICAL SUPERINTENDENT OF THE BOROUGH ISOLATION HOSPITAL,
BACTERIOLOGIST TO THE BOROUGH,
MEDICAL OFFICER OF HEALTH.

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Medical Superintendent of the Borough Isolation Hospital
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Medical Officer of Health.

HEALTH COMMITTEE.

Alderman Robertson (Chairman).
Councillor Semple (Vice-Chairman).
The Mayor (Councillor Henderson) *Ex-Officio.*

Alderman Bowman.
,, Gibbon.
,, Grant.
,, Hilton.
Councillor Anderson.
,, Armstrong.
,, Batey.
,, Burn.
,, Druery.
,, Dunlop.
Councillor Galloway.
,, Lawes.
,, Levy.
,, Marshall.
,, Pettler.
,, Richardson.
,, Robertson.
,, Edward Smith.
,, W. Stephenson.
,, Vine.

STAFF OF THE HEALTH DEPARTMENT.

Medical Officer of Health, Medical Superintendent of the Borough Isolation Hospital, and Bacteriologist.
D. Morley Mathieson, M.A., M.D., CH.B., D.P.H.

Deputy Medical Officer of Health.
A. Banks Raffle, M.D., LL.B., D.P.H.

Borough Analyst, J. T. Dunn, D.SC., F.I.C.

Superintendent of Public Abattoir, and Inspector under the Food and Drugs Acts.
M. J. Pollock.

District Sanitary and Housing Inspectors.
W. Clark, R. W. Weir, R. Ayre, W. Hill.

Inspector under the Shops Acts, W. Smith.

Inspector of Midwives and Health Visitor.
Mrs. M. W. Arthur, C.M.B.

Chief Clerk, J. Yeoman.
Assistant Clerks, C. Hymers and N. Willits.

Matron, Denes Isolation Hospital.
Miss I. Ingram.

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To the Chairman and Members of the Health Committee.

Gentlemen,

I have the honour of submitting to you my Second Annual Report, that for the year 1912.

The statistics for the year are, as compared with former years, in certain respects satisfactory. The death-rate (16.0 per 1,000) is the second lowest on record for the Borough. The Infant Mortality Rate (106 per 1,000 births) is the lowest annual rate which has been recorded. Fewer cases of Enteric (Typhoid) Fever have been notified than in any previous year. The attack-rates of Enteric Fever, Scarlet Fever, and Diphtheria are all considerably below the corresponding rates for the country generally.

But it must be noted that the death-rate is not satisfactory as compared with that of the other ninety-four Great Towns (13.8), or with that of the Country generally (13.3).

By far the most important features in the year under review are the awakening of public interest in the problem of Tuberculosis as a preventable disease, and the progress that has been made towards the inception of a comprehensive scheme for the control of the disease within the South Shields area.

During the year Tuberculosis caused 211 deaths, or no less than 12 per cent. of our total death-rate. Alongside of this huge mortality must be placed the fact that the majority of these deaths were preceded by years of sickness and disablement.

With this subject I dealt at some length in my last Annual Report. In this report it is discussed on pages 29-38.

I am, Gentlemen,

Yours faithfully,

D. MORLEY MATHIESON.

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VITAL STATISTICS.—POPULATION, BIRTHS, AND DEATHS.

(A) POPULATION.

1. Estimated Mid-Year Population.

The estimated mid-year population (June 30th, 1912) is 109,678.

2. Density of Population.

On the mid-year population as estimated above, the density of the population per acre is 45.7.

The area of the Borough is 2,399 acres, including inland water (55 acres), but excluding foreshore and tidal water (246 acres).

(B) BIRTHS.

1. Birth-Rate.

There were 3,352 births registered in the Borough during the 52 weeks ending December 28th. These included 30 births transferred by the Registrar-General.

This corresponds to a *birth-rate of 30.6 per 1,000 of the population, per annum.*

2. Comparison of Birth-Rate with Rates for Country generally.

	Per 1,000 of Population.
England and Wales	23.8
95 Great Towns, including London	24.9
146 Smaller Towns	23.8
England and Wales, less the 241 Towns	22.5
London	24.7
Durham Administrative County	31.1
South Shields	30.6

3. Distribution (Sexes: Legitimacy).

The proportion of male to female births was 1,059 : 1,000.

The percentage of illegitimate births was 4.1, as compared with 4.0 for 1911.

The distribution is shown in the following Table:—

Births.	Males.	Females.	Totals.
Legitimate	1,656	1,558	3,214
Illegitimate	68	70	138
Total	1,724	1,628	3,352

The number of births in each Ward is given on page 77.

(C) DEATHS.

1. Death-Rate.

1,752 deaths occurred during the year, *the death-rate being* 16.0 *per* 1,000 *of the population.*

This is the second lowest annual death-rate which has been recorded for the Borough. (The lowest was 15.2 in 1910).

The death-rates since 1901 are as follows :—

1901	20.6	per 1,000.
1902	19.8	,,
1903	17.6	,,
1904	18.9	,,
1905	17.1	,,
1906	19.0	,,
1907	18.0	,,
1908	16.8	,,
1909	16.6	,,
1910	15.2	,,
1911	17.4	,,
1912	16.0	,,

The death-rate for 1912, corrected for age and sex distribution, in accordance with the 1911 census, is 16.5.

2. Seasonal Death-Rate.

The following gives the deaths and death-rates for each quarter of the years 1911 and 1912 :—

	No. of Deaths.		Death-rate.	
	1911.	1912.	1911.	1912.
First Quarter	441	462	16.2	16.8
Second Quarter	438	377	16.1	13.7
Third Quarter	**533**	358	**19.6**	13.1
Fourth Quarter	478	**555**	17.6	**20.2**

In 1911 the weather during the third quarter was exceptionally warm and dry, and Infantile Diarrhoea was very prevalent, causing a large number of deaths.

In 1912 the weather at the corresponding period was cold and wet, and comparatively few cases of Summer Diarrhoea occurred. During the *fourth* quarter, however, there was a heavy mortality from Bronchitis, Pneumonia, and Phthisis; a not uncommon sequel to a bad summer.

3. Sex-Distribution of Deaths.

Of the total deaths, 903 were male, and 849 female ; a proportion of 1,064 : 1,000.

4. Transferable Deaths.

220 deaths occurred *outside* the Borough (177 being in the Union Workhouse) among persons belonging to the Borough. These 220 are included in the total number of deaths (1,752) stated above.

18 deaths occurred *within* the Borough among persons belonging to other districts. These have been transferred to the districts concerned, and are not included in the total deaths for South Shields.

5. Deaths in Public Institutions.

The number of deaths of South Shields residents which occurred in Public Institutions during the year is as follows :—

In the Union Workhouse, Harton	177
In other institutions outside the Borough	24
In the Ingham Infirmary, South Shields	67
In the Borough Isolation Hospital, South Shields	5
In the Nursing Home, Wellington Terrace, South Shields	5

This makes a total of 278, which is 16 per cent. of all the deaths during the year. In the years 1909, 1910, 1911, the percentage was 15, 16, and 14 respectively.

6. Coroners' Inquests.

Coroners' inquests were held regarding 100 deaths—that is, in 5.7 of the total deaths during the year.

75 of these deaths were due to various forms of Violence. (See Table 1, pages 71 and 72).

7. Uncertified Deaths.

81 deaths (4.6 per cent. of the total deaths) were uncertified by medical practitioners or by the Coroner. Of this number, 27 were infants under one year old.

The present state of the law with regard to Death and Burial is such that burial can take place without a certificate being produced from a medical practitioner to prove either

(*a*) the fact of death, or
(*b*) the cause of death.

Obviously, owing to this curious state of affairs, the community has no effective safeguard either against the occurrence of premature burial or against the concealment of crime.

In 1893 a Select Committee on Death Certification reported on this evil, and made strong recommendations. Twenty years have not sufficed for these recommendations to crystallise out into practical legislation.

Again, it is noteworthy that, under the present system, when a death is certified the certificate is handed to the relatives of the deceased, these take it to the Registrar, who in turn supplies the Medical Officer of Health with periodical lists for statistical purposes. This means not only a duplication of work, but unnecessary publicity, and inaccurate statistics. Out of respect for the feelings of relatives, the cause of death is frequently only partially set out in certificates, a secondary cause being given instead of a primary. The number of deaths from Alcoholism and Specific Disease, to give two examples, are consequently much understated in statistics based on the present system of death registration.

Reform is called for on some such lines as the following :—

(1) Compulsory notification or registration of all deaths within a specified period (24 or 48 hours) by the medical practitioner in attendance on the case during the last illness ; stating evidence of death, and cause of death.

(2) Where no registered medical practitioner was in attendance, an inspection to be made by the family doctor or by a duly appointed medical practitioner, who will certify, or, if not satisfied, order a further examination.

(3) Adequate fees to be paid to medical practitioners for every notification or certificate of death.

(4) All certificates to be sent by the medical practitioner direct to the Medical Officer of Health, under whose supervision the necessary records will be kept ; certificates to be regarded as confidential communications.

8. Infant Mortality.

(*a*) RATES.—There were 356 deaths in infants under one year old. This corresponds to an *Infant Mortality Rate of* 106 *per* 1,000 *births.*

There were 24 deaths in illegitimate infants under one year old ; giving an *Illegitimate Infant Mortality Rate of* 174 *per* 1,000 *births.*

The Infant Mortality Rate for 1912 is the lowest which has ever been recorded in the Borough. The rates for the past twelve years are as follows:—

1901	169	per 1,000 Births.
1902	149	,, ,,
1903	132	,, ,,
1904	144	,, ,,

1905	....	145 per 1,000 Births.
1906	....	150 ,, ,,
1907	....	133 ,, ,,
1908	....	133 ,, ,,
1909	....	138 ,, ,,
1910	....	111 ,, ,,
1911	....	147 ,, ,,
1912	....	106 ,, ,,

Although this reduction in the Infant Mortality Rate is so far satisfactory, there is room for much improvement yet; and it must be borne in mind that the past year, owing to the cold and wet weather prevailing during the summer months, was unfavourable to the development and spread of Summer Diarrhoea, which in 1911 caused an exceptionally high death-rate among children under one year old. (See pages 42-44).

(*b*) Causes of Infant Deaths.—A summary of the causes of infant deaths is given in the Tables on pages 76 and 77.

As compared with 1911, there is a welcome decrease in the number of deaths from Infantile Diarrhoea (15 as compared with 103), and from Debility, Marasmus, etc. (52 as compared with 100).

As I pointed out in my Annual Report for last year, the deplorable ignorance and carelessness of many mothers in the management and feeding of infants is responsible for much of our infant death-rate.

9. Deaths from Tuberculosis.

Tuberculosis was responsible for *no less than* 12 *per cent. of all the deaths* recorded in the Borough in 1912. The deaths from the disease were as follows :—

Deaths from Tuberculosis of the Lungs..	168
Deaths from other forms of Tuberculosis..	43
Total	211

This gives a *Tuberculosis Death-rate* of 1.92 per 1,000 of the population.

In my last Annual Report I showed that Pulmonary Tuberculosis has not appreciably diminished as a proportional factor in the South Shields death-rate during the past forty years. I may re-state here the figures for the years 1901-1912 :—

	Per cent. of Total Deaths.
In 1901, Pulmonary Tuberculosis caused	7.9
,, 1902, ,, ,,	9.0
,, 1903, ,, ,,	9.8

	Per cent. of Total Deaths.
In 1904, Pulmonary Tuberculosis caused	8.4
,, 1905, ,, ,,	7.0
,, 1906, ,, ,,	8.3
,, 1907, ,, ,,	9.4
,, 1908, , ,,	7.7
,, 1909, ,, ,,	7.3
,, 1910, ,, ,,	8.2
,, 1911, ,, ,,	6.9
,, 1912, ,, ,,	9.6

Of the 168 deaths from Pulmonary Tuberculosis, 143 occurred in individuals between 15 and 65 years old—that is, at a *wage-earning age.*

10. Deaths from Principal Epidemic Diseases.

The seven " principal Epidemic Diseases " caused 152 deaths, as follows :—

Measles	64
Whooping Cough	51
Diarrhoea and Enteritis (under two years)	20
Diphtheria	6
" Fever " (Enteric, Typhus, and Simple Continued Fever) (Two of these deaths occurred outside the Borough, and were " transferred.")	5
Scarlet Fever	6
Smallpox	0

This corresponds to a death-rate from all these diseases of 1.39 per 1,000 of the population. It will be noted that this figure is much below the death-rate of Tuberculosis alone.

11. Deaths from other Notifiable Infectious Diseases.

The following deaths occurred from other infectious and notifiable diseases not included above :—

Puerperal Fever	2
Epidemic Cerebro-spinal Meningitis	1
Poliomyelitis	1

12. Comparison of South Shields Death-Rates with those of Country generally.

The following Table shows the annual death-rates in England and Wales for 1912 :—

	General Death-rate.	Death-rate from Seven Principal Epidemic Diseases.								Infant Mortality Rate.
		The Seven Diseases.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Diarrhœa and Enteritis (under 2 years).	
England & Wales ..	13.3	†	0.04	0.00	0.35	0.05	0.23	0.11	†	95
95 Great Towns, including London ..	13.8	†	0.04	0.00	0.47	0.06	0.26	0.13	†	101
146 Smaller Towns	12.4	†	0.05	0.00	0.35	0.05	0.24	0.11	†	98
England & Wales, less the 241 Towns....	12.9	†	0.04	0.00	0.20	0.04	0.17	0.10	†	86
London	13.6	†	0.03	0.00	0.40	0.04	0.22	0.10	†	90
Durham Administrative County	13.6	1.38	0.06	0.00	0.52	0.10	0.27	0.15	*0.27	106
South Shields	**16.0**	**1.39**	**0.05**	..	**0.58**	**0.05**	**0.46**	**0.05**	**0.18**	**106**

* At all ages. † No figures available.

PREVALENCE OF AND CONTROL OVER THE NOTIFIABLE ACUTE INFECTIOUS DISEASES.

(A) GENERAL STATISTICS.

1. Number Notified.

Under the Infectious Disease (Notification) Act, 1889, which was brought into force within the Borough in May, 1891, 426 notifications were received during 1912. The nature of these diseases, and the corresponding figures for the past 10 years, are shown in the following Table :—

Disease.	1903	1904	1905	1906	1907	1908	1909	1910	1911	**1912**
Scarlet Fever	378	278	227	217	325	292	494	231	160	**273**
Diphtheria and Membranous Croup	83	73	103	168	133	128	93	82	71	**62**
Erysipelas	110	99	117	104	64	97	89	72	72	**65**
Enteric Fever	58	59	84	54	48	39	30	27	33	**18**
Smallpox	35	101	100	1	..	..	..	11	2	**1**
*Chickenpox	619	411	327	..	..	..	..	..	..	..
Puerperal Fever	6	3	4	1	5	5	4	8	7	**3**
Continued and Relapsing Fevers	..	1	..	..	..	..	..	..	..	..
†Poliomyelitis	..	..	..	..	..	..	..	..	..	**3**
†Cerebro-spinal Fever	..	..	..	..	..	..	..	..	..	**1**
Typhus	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..
Totals	1289	1025	962	545	575	561	710	431	345	**426**

* This disease was made notifiable during the prevalence of Smallpox as a precautionary measure, but ceased to be notifiable in August, 1905.

† These diseases were made notifiable in March, 1912.

2. Seasonal Incidence.

The following Table shows the number of cases of Acute Infectious Diseases notified during 1912, under the Infectious Disease (Notification) Act, 1889, and the months in which the notifications were received.:—

1912.	Scarlet Fever.	Diphtheria.	Erysipelas.	Enteric Fever.	Smallpox.	Puerperal Fever	Continued Fever.	Relapsing Fever.	Poliomyelitis.	Cerebro-spinal Fever.	Typhus.	Plague.	Cholera.	Totals.
January ..	24	6	9	5	..	2	..	..	..	..	..	..	..	46
February ..	11	5	6	1	..	..	..	..	..	..	..	..	..	23
March	13	8	1	2	..	..	..	..	..	..	..	..	..	24
April	16	9	2	..	..	..	..	..	..	..	..	..	..	27
May	18	3	5	1	..	..	..	..	..	..	..	..	..	27
June	22	1	3	2	1	..	..	..	..	..	..	..	..	29
July	18	5	8	1	..	..	..	..	..	..	..	..	..	32
August	33	3	7	2	..	..	..	..	..	..	..	..	..	45
September	33	4	6	1	..	..	..	..	..	1	..	..	..	45
October ..	37	6	6	3	..	..	..	..	2	..	..	..	..	54
November..	26	6	9	..	..	..	..	..	1	..	..	..	..	42
December	22	6	3	..	..	1	..	..	..	..	..	..	..	32
Total....	273	62	65	18	1	3	..	..	3	1	..	..	..	426

3. Age Incidence, and Locality.

For these particulars in connection with the Notifiable Acute Infectious Diseases, see Table 7, page 78.

(B) DISEASES IN DETAIL.

1. Scarlet Fever.

The *number of cases* notified during the year was 273. This is a considerable increase over last year's number (160). The probability of this increase I forecasted in my last Annual Report. Owing to the large numbers of susceptible children in the schools (*i.e.*, children who have not been protected by a previous attack) we must be prepared for an increased incidence of the disease at any time.

The *attack-rate*—2.50 per 1,000 of the population—compares favourably with the corresponding rates for the Administrative County of Durham—6.08; for the seventy-five County Boroughs—3.46; and for all England and Wales—2.98.

The *cases removed to the Isolation Hospital* numbered 216, or 79.1 per cent. of all the notified cases. This is the largest proportion removed in any year since the hospital was opened.

The *deaths* from the disease numbered 6; 4 of these being home-treated cases, and 2 cases treated in hospital.

The *mortality-rate* (per cent. of cases) was 2.2. With the exception of last year's rate, this is the lowest annual mortality-rate from Scarlet Fever which has been recorded in the Borough.

The *death-rate* from Scarlet Fever was 0.05 per 1,000 of the population—with one exception the lowest recorded death-rate from the disease.

The following Table gives the Scarlet Fever Attack-, Death- and Mortality-Rates, together with the percentage of cases removed to the hospital since compulsory notification came into force :—

Year.	Population	Attack-rate per 1,000 Population.	Death-rate per 1,000 Population.	Mortality Rate per cent. of Cases.	Percentage of cases Removed to Hospital.
1892	80,350	4.8	.12	2.5	34
1893	82,284	7.4	.38	5.2	27
1894	84,077	8.4	.39	4.6	28
1895	85,910	4.4	.18	4.1	33
1896	87,785	5.4	.18	3.3	40
1897	89,699	7.1	.15	2.2	40
1898	91,656	6.9	.25	3.6	42
1899	93,657	7.1	.21	3.0	42
1900	95,703	5.3	.21	4.1	55
1901	97,800	12.5	.60	4.7	39
1902*	101,801	8.2	.38	4.7	49
1903	102,561	3.7	.12	3.2	73
1904	103,327	2.7	.08	2.9	75
1905	104,099	2.2	.06	2.6	70
1906	104,876	2.1	.06	2.8	67
1907	105,659	3.1	.09	2.8	68
1908	106,448	2.7	.08	3.1	75
1909	107,244	4.6	.18	3.8	67
1910	108,045	2.1	.06	2.6	69
1911	108,844	1.5	.01	0.6	72
1912	**109,678**	**2.5**	**.05**	**2.2**	**79**

* Borough extended.

2. Diphtheria (including Membranous Croup).

The *number of cases* of Diphtheria notified was 62 ; the *lowest number* for any year since 1902.

The *attack-rate* was 0.57 per 1,000 of the population. This compares favourably with the corresponding rate for the Administrative County of Durham—1.34 ; for the seventy-five County Boroughs—1.34, and for all England and Wales—1.24.

The *number of deaths* from the disease was 6.

The *mortality-rate* (per cent. of cases) was 9.7.

The *death-rate* from Diphtheria was 0.05 per 1,000 of the population.

No *hospital accommodation* has yet been provided for Diphtheria. All the cases were treated at home. In many instances there was, owing to lack of accommodation, no possibility either of adequate nursing for the patient, or of efficient isolation in the interests of the other members of the household or of the general public. Most fortunately, the type of Diphtheria prevailing has been of comparatively low infectivity. But for this the Borough could hardly escape for long a serious outbreak of the disease.

The *home accommodation* can be gathered from the following :—

One-roomed houses : 1 primary case occurred in a one-roomed house, the number of inmates being 7 (3 adults, 4 children under 15 years of age).

Two-roomed houses : 13 primary cases occurred in two-roomed houses, the average number of inmates being 5 (2 adults, 3 children). One secondary case developed, and two deaths occurred.

Three-roomed houses : 17 primary cases occurred in three-roomed houses, the average number of inmates being 5 (2 adults, 3 children). Three of these cases died.

Four-roomed houses : 16 primary cases occurred in four-roomed houses, the average number of inmates being 5 (2 adults, 3 children). Two secondary cases developed, and one patient died.

Five rooms and over : 12 primary cases occurred in such houses, the average number of inmates being 8 (4 adults and 4 children).

The *bacteriological examination* of swabs from suspected cases is referred to on page 39. I have arranged that from the beginning of 1913 onwards, all elementary school children who are attacked with Diphtheria will be bacteriologically examined before they are allowed to return to school, so as to diminish the risk of "carrier" cases infecting other children.

3. Enteric Fever.

The *number of cases* notified during the year was 18. This is the smallest number which has been recorded in any year since notification came into force twenty-one years ago. Of these cases 10 were males, and 8 females.

The *cases removed to the Isolation Hospital* numbered 15 ; that is, 83 per cent. of the total number.

The *attack-rate* for Enteric was 0.16 per 1,000 of the population. This is lower than the corresponding rates for the Administrative County of Durham (0.38) ; for the aggregate of the seventy-five County Boroughs (0.28) ; and for all England and Wales (0.23).

The *deaths* from the disease numbered 5 ; but only 3 of these were among local notified cases—that is, 2 occurred outside the Borough, and were "transferred" for statistical purposes to South Shields. Of these 3, 2 occurred among the 3 home-treated cases, and 1 among the 15 cases treated at the Isolation Hospital.

The *mortality-rate* among the 18 cases was equal to a rate of 17 per cent.

The *death-rate* from Enteric was 0.05 per 1,000 of the population.

The *occupations* of those attacked by Enteric Fever were as follows :—Labourers, 2 ; Colliery Workers, 2 ; Policeman, 1 ; Apprentice Fitter, 1 ; Driller (Railway), 1 ; Rivetter, 1 ; Seaman, 1 ; Housewives and Domestic Servants, 6 ; Scholars, 2 ; no occupation (young child), 1.

The *sanitary conveniences* in the dwellings of the patients were, in 15 instances, privy receptacles ; in the remaining 3 instances, w.c.'s. Of the former class, 5 patients lived in houses where the privy receptacle was used by only one tenant ; 7 in houses where the receptacle was used by two tenants ; 1 in a house where the receptacle was used by three tenants ; and 2 in houses where the receptacle was used by four tenants. In the latter class, 2 patients lived in houses where one w.c. was provided for each tenant ; and 1 was from a Seamen's Lodging House.

The *source of infection* was investigated in each case. In four cases there was evidence of the disease having been imported ; one of these had drunk bad water when at sea. In four cases there was a history of shell-fish, and in one case of watercress, having been eaten. The sources of infection were, however, not associated.

4. Smallpox.

One case of Smallpox was notified during the year. The case was at once removed to Whiteleas Hospital ; convalescence was interrupted by the formation of abscesses, but eventually the patient made a good recovery.

As to *vaccination*, there was no evidence of the patient having been vaccinated in infancy.

The *source of infection* was investigated. At the probable date of infection the patient had been on a holiday with a large number of excursionists from widely scattered districts ; and no definite infection was traced.

Eight *contacts* were removed to the reception house at Whiteleas, and vaccination was carried out by the Public Vaccinator for the District (Dr. McNabb).

No secondary cases occurred.

5. Erysipelas.

The *number of cases* notified was 65.

One *death* occurred from the disease.

6. Puerperal Fever.

The *number of cases* notified was 3. Of these cases, 1 was attended by a midwife, and 1 by an uncertified woman.

The *deaths* from the disease numbered 2.

A communication from the Central Midwives Board regarding a case which occurred in 1911 is referred to on page 42.

7. Cerebro-Spinal Fever.

This disease became notifiable within the Borough in March, 1912.

One case was notified, and was removed to the Isolation Hospital, where death occurred.

No secondary cases developed.

8. Poliomyelitis Anterior Acuta.

This disease also became notifiable in the Borough in March, 1912.

The *number of cases* notified was 3.

There was one *death* from the disease.

9. Cholera, Plague, Typhus, and Relapsing Fever.

No cases of these diseases occurred during the year. Information was received regarding three persons coming from infected districts, two of whom had suspicious symptoms (one a bubo, one Orchitis). These cases were kept under observation.

(C) CASES TREATED IN THE BOROUGH ISOLATION HOSPITALS.

1. Isolation Hospital, Dean Road.

(*a*) Total Cases under treatment during 1912.—The following Table shows the *total number* of cases admitted to, and discharged from, the Denes Hospital during 1912.

Notified Diseases.	Remaining in on Dec. 31st, 1911.	**Admitted during 1912.**	Total Number Treated during 1912.	Discharged during 1912.	Died during 1912.	Remaining in on Dec. 31st, 1912.	Mortality per cent. of total number of Discharges and Deaths.
Scarlet Fever	20	**217**	237	206	2	29	1.0
Enteric Fever	4	**15**	19	17	2	..	11.0
Cerebro-Spinal Fever	..	**1**	1	..	1	..	..
Suspects	..	**4**	4	4	..	..	..
Totals	24	**237**	261	227	5	29	2.2

(*b*) Average number under treatment during each Month of 1912.—The following Table gives the *average daily number* of cases under treatment in Hospital during each month of 1912 :—

Notified Diseases.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Whole Year.
Scarlet Fever	18.9	14.7	12.0	17.0	20.8	22.7	26.6	22.8	34.1	37.2	35.4	26.7	**24.1**
EntericFever	5.6	2.4	2.6	0.5	0.8	0.7	0.3	0.7	1.5	2.0	0.5	..	**1.5**
Other	..	..	..	..	..	..	..	0.1	0.3	0.3	..	..	**0.1**
All Diseases	24.5	17·1	14.7	17·5	21.6	23.4	26.9	23.6	35.9	39.5	35.9	26.7	**25.7**

(*c*) TOTAL CASES UNDER TREATMENT FOR PAST 10 YEARS.—The following Table shows the number of cases admitted during each of the *past ten years* to the Denes Isolation Hospital. (The Hospital was first opened for the reception of patients in May, 1883) :—

Disease.	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Scarlet Fever	277	209	161	147	220	219	333	160	115	217
Enteric Fever	29	29	59	35	37	32	21	19	24	15
Other Diseases........	..	..	4	5	2	3	1	2	4	5
TOTALS	306	238	224	187	259	254	355	181	143	237

(*d*) WARD DISTRIBUTION OF CASES REMOVED TO HOSPITAL.—The number of cases of infectious disease removed during the year to the Denes Hospital from the different Wards is shown in the Table on page 78. (One Scarlet Fever case, in the person of a South Shields child, was admitted direct from Stannington Sanatorium.)

(*e*) AGES OF PATIENTS REMOVED TO HOSPITAL.—The ages of *all notified cases* are shown in the Table on page 78.

(*f*) SCARLET FEVER CASES TREATED IN HOSPITAL.—The *greatest number* of Scarlet Fever cases under treatment in Hospital at any one time was 47 on October 25th.

The *smallest number* of Scarlet Fever cases under treatment at any one time was 10 on Feb. 17th to 20th, March 13th to 18th.

The *average stay* in Hospital of Scarlet Fever patients was 42.9 days.

There were *two deaths* in the Hospital from Scarlet Fever during the year (after 14 days and 5 days, respectively).

Two cases of *suspected Scarlet Fever* were admitted to Hospital.

The *complications* from which certain of the Scarlet Fever patients suffered were as follows :—

	Present on Admission.	Developed after Admission.	Total.
Adenitis*	5	7	12
Otorrhœa (one ear)	3	6	9
Otorrhœa (both ears)	1	1	2
Nephritis	3	2	5
Rhinitis	4	1	5
Rheumatism	2	..	2
Blepharitis	5	1	6
Pneumonia	3	..	3
Bronchitis	3	..	3
Herpes	2	..	2
Laryngitis	1	..	1
Conjunctivitis	3	1	4
Urticaria	..	2	2
Eczema	2	..	2

* Two cases were operated on.

(*g*) SECONDARY INFECTIONS AMONG SCARLET FEVER PATIENTS.—Of the 237 Scarlet Fever patients treated in Hospital during the year, eleven suffered concurrently from other infectious diseases. These cases of "secondary infections" are shown in the following Table :—

	Secondary Infections.			
	Present on Admission.	Developed after Admission.	Contracted in Hospital.	Total.
Measles	3	1	..	4
Whooping Cough	2	..	..	2
Chickenpox	2	1	2	5

1.—*Present on Admission.*—Cases showing symptoms of the second disease at the time of their admission to Hospital. These patients were not put in the general Scarlet Fever wards, but in "isolation" wards.

2.—*Developed after Admission.*—Cases which had been infected with the second disease before their admission to Hospital, but which developed symptoms of the disease only after admission. In most instances there was no means of knowing when a patient had thus been exposed to a secondary infection prior to admission ; and when symptoms developed the patient was already in one of the general wards.

3—*Contracted in Hospital.*—Cases actually infected after admission. Owing to the limited accommodation at the Denes Hospital for isolation purposes, there is considerable difficulty in controlling outbreaks of secondary infections.

(*h*) ENTERIC FEVER CASES TREATED IN HOSPITAL.—The *greatest number* of Enteric (Typhoid) Fever cases under treatment in Hospital at any one time was 7 (Jan. 6th to 12th).

For 130 days there were *no patients* in Hospital suffering from Enteric Fever.

The *average stay* of patients (excluding fatal cases) was 30 days.

There were two *deaths*, one (after 38 days) from Enteric Fever, and one (after 8 days) from Pulmonary Tuberculosis and Tuberculous Meningitis.

Two *contacts* (seamen from a Lodging House) were admitted and kept under observation for a short period.

(*i*) CEREBRO-SPINAL MENINGITIS CASES TREATED IN HOSPITAL.—One patient suffering from a severe form of this disease was admitted to Hospital. Death occurred within 48 hours.

2. Smallpox Hospital, Whiteleas.

(*a*) CASES FROM SOUTH SHIELDS UNDER TREATMENT DURING 1912.—During the year one case of Smallpox and 8 "contacts" were admitted to the Whiteleas Hospital. The case recovered. (See page 18). None of the contacts developed the disease.

(*b*) CASES FROM OTHER DISTRICTS UNDER TREATMENT DURING 1912.—No cases were admitted during the year from any of the other districts—the Urban Districts of Felling, Hebburn, Jarrow, and Southwick, and the Rural Districts of South Shields and Sunderland—the authorities of which districts are, with South Shields County Borough, the constituent authorities of the N.E. Durham Joint Smallpox Hospital Board.

(*c*) TOTAL CASES UNDER TREATMENT IN LAST 20 YEARS.—The following is the number of cases treated in the Hospital since it was opened in 1893:—

YEAR.	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Cases of Smallpox	51	14	22	12	3	9	3	2	..	71
YEAR.	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Cases of Smallpox	37	103	101	2	..	..	1	15	2	1

PREVALENCE OF AND CONTROL OVER CERTAIN NON-NOTIFIABLE DISEASES.

1. Measles.

A widespread outbreak of Measles occurred during the last four months of the year. The following is a list of certain classes in the public elementary schools, the closure of which, on account of Measles, was advised by the Medical Officer of Health :—

School.	Classes Closed.	Date of Closing.
Westoe Infants'	Babies' Class	Sept. 9th.
,, ...	Class 8	Oct. 11th.
,, ...	Whole Department	,, 18th.
Stanhope Road Infants'	,, ...	,, 24th.
St. Hilda's Infants'......	Lower Division	Nov. 7th.
West Harton Infants' ..	Whole Department	,, 11th.
Ocean Road Infants'	,, ...	,, 20th.
Gilbert Street Infants' ..	,, ...	,, 20th.
Baring Street Infants' ..	,, ...	,, 25th.
St. Bede's Infants'	,, ...	Dec. 5th.
Mortimer Road Infants'	,, ...	,, 5th.
East Jarrow Infants'	,, ...	,, 13th.

The *deaths* from the disease during the year numbered 64.

The *death-rate* from the disease was 0.58 per 1,000 of the population.

The majority (53) of the deaths occurred during the months of November and December ; and 57 of the deaths occurred in children under five years of age.

2. Whooping Cough.

The *deaths* from Whooping Cough numbered 51. Of these, 49 were in children under five years of age.

The *death-rate* from the disease was 0.46 per 1,000 of the population.

Gilbert Street Infants' School was closed on 7th March on account of an outbreak of Whooping Cough and Chickenpox.

3. Diarrhoea and Enteritis.

The *deaths* from these diseases in children under two years of age numbered 20. This is a very marked reduction as compared with last year, when 148 deaths were recorded. The reduction is largely to be accounted for by the wet and cold weather prevailing during the summer, warmth and dryness being conditions which favour the conveyance of infection from case to case by dust and flies. Reference is made to this subject on page 43.

The *death-rate* from these diseases was 0.18 per 1,000 of the population, or 6.0 per 1,000 births.

The *age distribution* of the children under one year old who died from these diseases was as follows :—

3 were under one month.
2 were one to three months old.
3 were three to six months old.
2 were six to nine months old.
5 were nine to twelve months old.

The *Ward distribution* of the disease is shown in Table 2, page 73, and in Table 6, page 77.

4. Pneumonia.

Pneumonia was responsible for 137 deaths, equal to a *death-rate of* 1.25 *per* 1,000 *of the population*—as compared with 170 deaths in 1911.

82 were cases of Broncho-Pneumonia, 13 of Lobar Pneumonia ; 42 were not defined.

31 deaths occurred under 1 year of age.
44 ,, between 1 and 5 years.
9 ,, between 5 and 20 years.
9 ,, between 20 and 35 years.
7 ,, between 35 and 45 years.
14 ,, between 45 and 55 years.
23 ,, over 55.

5. Bronchitis.

The *deaths* from Bronchitis during the year numbered 165 ; equivalent to a *death-rate* of 1.50 per 1,000 of the population.

6. Influenza.

There were 24 deaths from Influenza, equivalent to a *death-rate of* 0.2 *per* 1,000 *of the population.*

7. Cancer.

The total number of *deaths* certified as due to Cancer was 78 ; equivalent to a death-rate of 0.71 per 1,000 of the population.

There has been a general increase in the Cancer death-rate throughout the country in the last ten years. This has been explained by the fact that the general death-rate during the earlier years of life has been lowered by the improvement in health conditions, housing, etc. ; so that a larger proportion of the population live to later middle age—the period when the incidence of Cancer becomes marked. But it would appear that this theory hardly meets the case, because the actual *proportion of deaths from Cancer to deaths from all causes* in persons past middle age has increased. Again, the improvement in the accuracy of diagnosis (a larger proportion of cases of the disease being recognised) is not sufficient in itself to account for the rise in the Cancer death-rate ; so that there would appear to be a real increase in the Cancer death-rate.

CONTROL OF INFECTIOUS DISEASES IN SCHOOLS.

The risk of acute infectious diseases being disseminated in public elementary schools, owing to the children being in close proximity to one another for considerable periods, is so obvious that the schools are, popularly, too often blamed for the spread of outbreaks. Other possibilities have to be borne in mind ; for example, it must be remembered that each school draws its scholars from a more or less defined locality, and that children playing together in back yards or lanes frequently transmit infectious ailments to each other. This is particularly the case in congested districts ; so much so that the closure of a school in a poor and badly housed area should be resorted to only under exceptional circumstances.

These considerations aside, however, there is no room for doubt that a leading part is almost unavoidably played in many outbreaks of infectious disease by our elementary schools, and by the Sunday schools—the latter being the more dangerous in that they are not under the control of a central authority with power to enforce closure.

A great deal can be done, and is done, by the teachers in detecting mild cases of illness that either have escaped notice at home or have wilfully been left unattended.

REGULATIONS.

During the past year new Regulations were prepared with regard to cases of infectious disease among school children. These Regulations deal with the commoner Notifiable Infectious Diseases, certain prevalent acute Infectious Diseases which are not compulsorily notifiable, and certain infectious Eye and Skin Diseases. They were approved by the Education Committee, and came into force on January 1st, 1913.

Their object is twofold. Firstly, to define the period for which patients suffering from infectious conditions, and " contacts " of such patients, should be excluded from school. (In certain diseases —Scarlet Fever, for example—information is sent by the Medical Officer of Health to the Head Teacher of the school attended, stating the date on which each individual patient, and each contact, may return to school. The teacher is thus relieved of the responsibility of calculating quarantine periods in cases of these diseases). Secondly, to give in connection with each disease a practical summary of those symptoms which can be detected in class by an observant teacher.

The Regulations are printed on a single sheet of cardboard, which is hung up in each school so as to be readily available for reference. The details are given below.

1. Period of exclusion of Patients from school.

Scarlet Fever, Diphtheria and Membranous Croup, Smallpox, and Enteric Fever.—An official notice will be sent to the Head Teacher by the Medical Officer of Health, stating earliest date on which child may be allowed to return to school. In the case of Diphtheria, children are excluded until found, on bacteriological examination, to be free from infection ; provision for the necessary examination being made at the Health Department.

Tuberculosis.—A child who has been notified as suffering from Tuberculosis of the *Lungs* should be excluded from school as long as there is cough or expectoration ; or until certified by the Medical Officer of Health as fit to return to school. (Cases *suspected* to be suffering from any form of Tuberculosis should be sent to the School Medical Officer for examination.)

Measles.—Until all catarrh from nose and eyes has stopped, and cough has gone. Not less than one month from onset of illness. (A special notice has been prepared for the information of parents. This is distributed by the teacher whenever the exclusion of a class is required.)

German Measles.—Until symptoms have cleared up. Not less than 14 days from onset of illness.

Whooping Cough.—Until cough has gone. Not less than one month from onset of illness.

Chickenpox.—Until all crusts have entirely separated from skin. The scalp requires to be most carefully examined.

Mumps.—Until one clear week after all swelling has subsided ; not less than one month from onset of disease.

Ringworm, Impetigo, Scabies, Ophthalmia, Trachoma.—Until a medical certificate is produced, stating that child is free from infection. Where a medical certificate is not obtainable the case should be sent for report to the School Medical Officer before being admitted to school.

2. Period of exclusion of Contacts from school.

Scarlet Fever, Diphtheria and Membranous Croup, Smallpox, and Enteric Fever.—Contacts to be excluded from school. An official notice will be sent to the Head Teacher by the Medical Officer of Health, stating earliest date on which child may be allowed to return to school.

Tuberculosis.—Do not exclude contacts.

Measles, German Measles, Whooping Cough, Chickenpox, Mumps—Senior Schools : (*a*) Contacts who have had the disease are not to be excluded. (*b*) Contacts who have *not* had the disease are to be excluded until 21 days from the onset of the *first* case with which they have been in contact at home. INFANT SCHOOLS: *All* contacts are to be excluded from school until 21 days from the date of *last* exposure to infection.

(In the case of Mumps, the quarantine period is 28 days instead of 21 days).

RINGWORM, IMPETIGO, SCABIES, OPHTHALMIA, TRACHOMA.—Do not exclude contacts.

3. Symptoms to be noted by Teachers.

Regard any of these as important, especially when the disease in question is prevalent. Where there is any suspicion that a child may be suffering from an infectious disease, the child should *at once* be excluded from school.

SCARLET FEVER.—*Early*: onset is sudden: sore throat, vomiting, headache; face flushed, pale round mouth; eyes bright; swollen glands in neck. *Later*—Skin peeling behind ears, at side of neck, and on hands.

DIPHTHERIA AND MEMBRANOUS CROUP.—*Diphtheria of Throat*: Sore throat—may not be much complained of; weakness; pallor of face; vomiting; swollen glands in neck. *Nasal form*: Irritating discharge from nose, may be blood-stained; upper lip reddened.

SMALLPOX.—Backache; headache; vomiting. Rash on forehead and wrists; hard papules, which become filled, first with watery fluid, and then with pus.

ENTERIC FEVER.—Onset gradual. Face flushed; eyes bright; pupils large; mouth dry; diarrhoea or constipation; weakness.

TUBERCULOSIS.—*General symptoms*—Wasting; night sweats; progressive weakness. *Local symptoms*—Cough, may be with expectoration. Enlarged glands. Joint symptoms, etc.

MEASLES.—Sneezing and nasal catarrh; running at the eyes; bleary appearance; blotchy dark-coloured rash on face; cough.

GERMAN MEASLES.—Sore throat; rose-coloured slightly raised rash first seen on face; running at nose (if present, comes *after* rash); enlarged glands at back of neck.

WHOOPING COUGH.—*Early*: onset is gradual: cough; bronchial catarrh—this may last a fortnight. *Later*: cough becomes paroxysmal; characteristic spasm, with whoop during inspiration; vomiting frequent. (N.B.—The early stage, *before* whooping, is very infectious).

CHICKENPOX.—Rash generally the first sign; papules seen on face and scalp; they become filled with clear fluid, and later with pus; bursting, they form crusts. The dry crusts are very infectious.

MUMPS.—Swelling of glands at side of face, below the ear; neck glands may also be affected. Pain on opening mouth and on swallowing. (Among the uneducated, there is a common practice of referring to all cases of swollen cervical glands as "Mumps." This mistake must be avoided, as it may lead to serious results.)

RINGWORM.—When on skin, reddish ring-like areas. Does not always present this typical appearance, however. On scalp, more or less circular areas, partly denuded of hair ; short, stumpy, bent, and twisted hairs left.

IMPETIGO.—Yellowish crusts about face, and perhaps on scalp and hands ; look as if they had been glued on. The disease, which is very infectious, clears up in a few days under proper treatment.

SCABIES.—An eruption, often pustular ; chiefly on hands, and especially between the fingers. Much irritation and consequent scratching.

OPHTHALMIA.—Redness and swelling of conjunctivae, with yellowish discharge. Child blinks, and avoids the light.

TRACHOMA.—Small greyish-white papules on surface of conjunctivae. Generally copious discharge.

4. Notification by Teachers to Health Department.

Arrangements have been made for the daily notification to the Health Department, by telephone, of any actual or supposed case of infectious disease which may be brought under the notice of a School Attendance Officer in the course of his duty.

5. Infectious Illness in the Home of a Teacher.

A teacher must not attend school from a house in which there is, *or has recently been*, a case of acute infectious disease until the Medical Officer of Health has certified that there is no likelihood of infection being conveyed from the house to the school. When advised to do so the teacher must take lodgings.

PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

(A) DEATHS FROM TUBERCULOSIS.

1. Deaths from all forms of Tuberculosis.

As stated on page 11, there were 211 deaths from Tuberculosis during 1912, as follows :—

Pulmonary Tuberculosis	168
Other forms of Tuberculosis	43

2. Disinfection after Phthisis Deaths.

The attention of the staff of the Health Department was, during the year, directed to securing that disinfection was carried out in an increasing proportion of cases of deaths from Phthisis. The result was that in connection with *56 per cent.* of the instances where deaths had occurred from Pulmonary Tuberculosis the rooms which had been occupied by the patient were disinfected by the staff of the Department (as compared with *20 per cent.* in 1911), and in *53 per cent.* bedding was removed to the Isolation Hospital and disinfected (as compared with *42 per cent.* in 1911).

As the total number of deaths from Phthisis was considerably larger in 1912 (168 as compared with 130 in 1911) it will be seen that the amount of work done was greatly increased.

Many of the deaths where no home disinfection was carried out occurred in the Workhouse Hospital and other institutions.

The ideal to be aimed at is the disinfection of all premises occupied by infectious (open) cases,

(*a*) periodically during occupancy ;
(*b*) on removal to other premises;
(*c*) in the event of the patient's death.

This will entail a large increase in the amount of work to be done by the staff.

The following general instructions were issued for the guidance of those who wished to disinfect their own premises :—

(*a*) The walls should be stripped of all paper (the paper may be impregnated with infection and should at once be burned).

(*b*) The ceilings should be washed with whiting containing disinfectant of a suitable strength.

(*c*) The floors and skirting-boards should be thoroughly washed with disinfectant.

(*d*) The premises should then be fumigated throughout, before re-papering or distempering.

(*e*) All bedding, mattresses, and clothing which have been used by the patient must be efficiently disinfected or destroyed.

When these steps have been taken, the house may be considered safe for habitation.

(B) NOTIFICATION OF PULMONARY TUBERCULOSIS.

The *compulsory notification of all cases* of Pulmonary Tuberculosis came into force on the 1st January, 1912.

The *total number of notifications* received during the year was 687. These related to 478 new cases—that is, in respect of a number of cases more than one notification was received.

The *source of the notifications* received was as follows :—

From medical practitioners *re* cases seen in private practice	352
From medical practitioners *re* cases seen in poor law medical practice, and from other poor law officers	213
From medical officers in general hospitals	48
From School Medical Inspectors	74
	687

(C) NOTIFICATION OF NON-PULMONARY TUBERCULOSIS.

New regulations were issued at the end of 1912, making compulsory the notification of *all forms* of Tuberculosis (that is, non-pulmonary as well as pulmonary cases) as from 1st February, 1913.

(D) ADMINISTRATIVE ENQUIRIES AND ACTION REGARDING NOTIFIED CASES OF PULMONARY TUBERCULOSIS.

1. Number of Cases, 1912.

On the 1st January, 1912, there were on the Register of the Health Department the names of 153 patients suffering from Pulmonary Tuberculosis.

During the year, 478 additional cases were notified ; so that the total number of cases under observation (so far as the limited staff allowed) was 631.

Of this number, 15 left the town permanently; 146 died from Pulmonary Tuberculosis; and 13 died from other causes. (22 deaths from Pulmonary Tuberculosis also occurred among patients who had not been notified).

Hence, on the 31st December, 1912, there remained on the Register the names of 457 patients who were at that date inhabitants of South Shields and were suffering from Tuberculosis of the Lungs.

2. Investigation and Supervision.

It has not been possible with our present staff either to supervise, or to investigate adequately the circumstances of, such a large number of cases.

The Tuberculosis Regulations of 1911 impose an obligation on local authorities to make such enquiries or take such steps as may appear necessary or desirable for preventing the spread of infection, or for removing conditions favourable to infection. The new work involved in carrying out these requirements is work which is very exacting in character, and which will cover a wide field. It will be obvious that it cannot be carried out until satisfactory provision is made for it on some such lines as have been indicated in the proposed Dispensary Scheme for the County Borough. Each case will require to be visited frequently for the purpose of investigating sources of infection, etc. Enquiries will have to be made tactfully, and with due regard to the privacy of the patient; several visits will often need to be devoted to obtaining information bearing on one case. Subsequent routine visitation will be required to ensure that instructions on hygienic living, disinfection, etc., are being carried out.

The medical examination of contacts who may have been exposed to infection is another important branch of the work of prevention and early detection.

3. Summary of certain results of Investigation.

The following is a summary of certain features of the cases on the Register during 1912, obtained by such investigation as was possible with the existing staff.

With regard to the attitude of patients and their relatives towards compulsory notification and visitation, I am glad to say that this has been almost entirely intelligent and appreciative. In the great majority of cases the visits of the Nurse have been welcomed, and re-visits asked for. The assistance which I have received from the members of the medical profession in the town with regard to notified cases has been of the greatest value.

Stage of disease at time when first visited :—

15 per cent. early.
40 per cent. moderately advanced.
45 per cent. advanced.

Time of commencement of illness (as stated by patient).

6 months ago, 29 per cent.
6-12 months ago, 13 per cent.
1-2 years ago, 18 per cent.
Over 2 years ago, 40 per cent.

Number of cases confined to bed when first visited.

21 per cent. confined to bed.
79 per cent. not confined to bed.

Family History (investigated in only about half the cases).

Other cases of Tuberculosis in same house, 45 cases.

Other cases of Tuberculosis among relatives not living in house, 16.

Suspected cases living in house, 77.

Number of cases who have had relatives who have died of Tuberculosis, 78.

Number of children attending school from houses where there is a case of Tuberculosis, 929.

Source of Infection.

In 77 cases the infection was directly traced to other Phthisical patients, for example :—

16 were stated to have contracted the disease from father.
15 ,, ,, ,, mother.
8 ,, ,, ,, wife.
12 ,, ,, ,, husband.
12 ,, ,, ,, brother.
14 ,, ,, ,, sister.

Reference must be made to the fatalistic theory even now sometimes expressed, that Tuberculosis is a "hereditary" (and therefore to a great extent an *inevitable*) disease. The fact is that cases of inherited or congenital Tuberculosis are very rare indeed. What *may* be inherited is a diathesis or *tendency to contract* Tuberculosis. But this can be guarded against, and is a very different thing from inherited disease.

It is not uncommon to hear of a whole family being wiped out by Consumption. I am convinced that this is very frequently an instance of direct spread in a grossly infected house, owing to neglect of proper precautions. In such cases the lodger does not escape.

Home Environment, Ventilation, etc

In 32 per cent. of cases, the facilities for ventilation are stated to have been adequate, and made use of reasonably well.

In 60 per cent. of cases, the facilities for ventilation though adequate, were not made use of.

In 8 per cent. the houses were said to be badly ventilated.

In most cases even where the home is quite clean and otherwise comfortable, the vaguest ideas as to ventilation are prevalent, and the air is stuffy and unwholesome.

90 per cent. of the houses are overcrowded with furniture, curtains, ornaments, etc., which crowd out the air space and harbour dust. In many of the poorest homes, bird cages—some of them breeding cages—are taking up a great deal of the wall and window space. Almost invariably the windows of these houses are kept tightly shut, possibly on account of the birds. Cats are another common nuisance. In one room where three people lived and slept, there were six cats.

In 90 per cent. of the homes, light and air is obstructed by window curtains; and in about one house in five, plants and creeping foliage are causing similar obstruction.

Sleeping Accommodation.

In 39 per cent. of cases only, the patient had a bed to himself; that is, in 61 per cent. he shared a bed with another member of the family. In only 5 per cent. the patient slept in a separate room.

Changes of Address during year.

Changed address once	72
,, ,, twice	22
,, ,, three times..........	5
,, ,, five times	1

One of the difficulties in the way of administration is the migratory tendency of many consumptives, due chiefly to poverty. Unless frequent visits are being paid, cases are apt to be lost trace of; and only too often, after a house is vacated by a consumptive patient, new tenants come in and settle down, without any disinfection having been carried out.

Visitation by Health Visitor.

57 per cent of these patients could only be visited once during the year by the Health Visitor; 29 per cent. were visited twice; 14 per cent. were visited three times or more.

If anything like good results are to be obtained in the way of supervision, many cases will have to be visited at least once a fortnight; and every case should be visited once every one or two months.

4. Number of Insured Persons under the National Insurance Act.

Enquiries were made with reference to 395 patients with a view to ascertaining how many of them were Insured persons, how many were Dependants of Insured persons, and how many were neither Insured nor Dependants.

The result of these enquiries is as follows :—

28 per cent. of these cases were *Insured Persons* :—

Male	25	per cent.
Female	3	,,

37 per cent. of these cases were *Dependants of Insured Persons* :—

Wives	8	per cent.
Children under 16	26	,,
Other relatives over 16—Male	1	,,
Female	2	,,

35 per cent. of these cases were *Neither Insured nor Dependants of Insured* :—

Poor Law cases, under 16	4	per cent.
,, over 16	27	,,
Not Poor Law cases, under 16	1	,,
,, ,, over 16	3	,,

100 per cent. 100 per cent.

These, then, may be taken as the proportions as they exist *at present* among cases which are *known* to be suffering from Pulmonary Tuberculosis.

The following points must be kept in mind :—

1.—A certain number of the patients who are *neither* insured nor dependants are able to afford to pay for medical attendance, etc., and will not be dealt with in any Tuberculosis Scheme for the Borough.

2.—The proportion of *Insured* and *Dependants* to *neither* will increase during the next few years, for two reasons :—

(*a*) A considerable number of the adult patients who are among the non-insured at present *would have been insured* if the Insurance Act had come into force say two or three years ago. They would have become " insured persons " before their illness began. Similarly, there will be a marked diminution, in the future, in Poor Law Tuberculous cases ; and a corresponding increase in Insurance Tuberculous cases.

(*b*) Any increase in the total number of adult cases of Pulmonary Tuberculosis which is likely to be revealed by the provision of greater facilities for *early diagnosis* will come largely from those who are comparatively well and working, from the ranks of the insured.

The result of the above will be to alter the proportions considerably. The following may be taken as an estimate of the proportions one or two years hence :—

Patients suffering from Pulmonary Tuberculosis :—

40 per cent. Insured.
40 per cent. Dependants of insured.
20 per cent. neither insured nor dependants of insured.

(E) TUBERCULOSIS SCHEME FOR THE COUNTY BOROUGH.

During the year careful consideration was given by the Health Committee and by the Tuberculosis Sub-Committee to the question of a complete or partial scheme for the treatment and control of Tuberculosis within the Borough. Special reports were prepared for these Committees by the Medical Officer of Health on the existing means for the treatment of Tuberculosis within the County Borough; the number of beds in existing institutions which are or could be used for the treatment of Tuberculosis; and the estimated needs of the area generally.

I may recapitulate here the main points in connection with a complete scheme for the County Borough, the three primary units of which are Dispensary, Hospital Accommodation, and Sanatorium Accommodation.

1. Central Unit or Dispensary.

The name "Dispensary" which has been selected for this unit is somewhat unfortunate, as it tends to suggest a charitable institution where medicines will be dispensed or distributed. To regard this as a prominent function of this central unit would be erroneous. The Dispensary is the centre for the anti-Tuberculosis movement in any area—the common centre for the organisation of treatment, for consultative, diagnostic, educational, bacteriological and statistical work; for the examination of contacts, and for the "after-care" or observation of patients who have been to Sanatoria.

The accommodation detailed in the Interim Report of the Departmental Committee on Tuberculosis as desirable for a Dispensary is as follows:—an office, general waiting-room, committee room, consulting room, dressing rooms, rooms for laryngoscopical and bacteriological examinations, and for the storage of drugs. The situation must, of course, be central.

The Report also states that "The Committee wish to express the opinion that there is no danger of infection being conveyed from the Dispensary to the occupants of neighbouring houses."

The initial expense of the erection of a new building on a suitable site to provide the above accommodation would be considerable. Again, the use of a dwelling-house for the purpose has several drawbacks; the objections of the tenants of adjoining houses have to be met, although, as the Interim Report states, there is no danger of infection being conveyed to them; it is not always easy to secure an adaptable house, suitably situated in a quiet locality, with satisfactory lighting and access; the initial cost of adapting would be heavy, and the maintenance charges will include an annual rental, wages of caretaker, telephone rental, etc.

An alternative suggestion for South Shields is to provide the necessary accommodation at the Health Department. Here there is already a bacteriological laboratory; use could be made for clerical purposes of the existing offices, where notifications of Phthisis and the records of cases are kept. The additional accommodation necessary could be provided by a simple extension on the site adjoining the laboratory, at the back of the Buildings. An entrance could be made from Broughton Road, so that patients need not pass along any of the corridors in the Buildings. (At present disinfectants for use in connection with Phthisis cases are issued each week at the Health Department to about 130 persons; these have to make use of the ordinary entrances).

2. Sanatorium Accommodation.

The Interim Report recommends that Sanatorium Accommodation should be provided to the extent approximately of one bed for each 5,000 of the population; and that each sanatorium should consist of not less than 100 beds.

On this basis, in a provisional scheme for South Shields, 22 beds should be provided—say 12 for males, and 10 for females. I suggested that it would be to the advantage of the County Borough to consider the desirability of co-operating with the three other County Boroughs in the County—Sunderland, Gateshead, and West Hartlepool—with a view to the provision of this accommodation. The combined population of the four County Boroughs (over 440,000) corresponds to a sanatorium of about 90 beds on the suggested basis. An institution of 20 or 30 beds would cost much more, proportionately, both in capital outlay and upkeep, than one of 90 or 100 beds.

The two Sanatoria established by the Society for the Prevention and Cure of Consumption in the County of Durham have accommodation for 73 patients—for 45 males at Stanhope, for 28 females at Wolsingham. The Health Committee discussed the desirability of taking a number of beds at these Sanatoria as a temporary measure. Information was received from the Society to the effect that, owing to existing obligations, only 5 beds could at present be allotted to South Shields. These beds have been secured.

3. Hospital Accommodation.

This is required (*a*) for doubtful cases—for purposes of diagnosis; (*b*) for early cases—to decide on the most suitable form of treatment to be adopted, and to educate the patient in the principles of hygienic living; (*c*) for such advanced cases as are highly infectious and cannot be adequately isolated at home; (*d*) for emergencies.

The Interim Report recommends that (in addition to existing Poor Law accommodation) Hospital beds to the same number as Sanatorium beds—that is, about 1 per 5,000 of the population—should be provided. For South Shields 22 beds will be required—12 for males and 10 for females.

This hospital accommodation should be provided locally, within easy access of the Borough. The most suitable situation is, as a rule, in connection with existing Isolation Hospitals; as use can be made of the administration block, general staff, etc., and the initial outlay lessened. At the Borough Isolation Hospital (Denes), however, the accommodation in the administration block is already fully taxed, and the existing bed accommodation would be insufficient in the event of any considerable outbreak of Scarlet Fever. There is no available space for new buildings. Under these circumstances it is obvious that provision of Hospital beds for cases of Tuberculosis cannot be made here.

The question of the utilisation of Whiteleas Hospital, when not in use for Smallpox, for the accommodation of cases of Pulmonary Tuberculosis has already received the consideration of the Joint Board, subsequent to a suggestion made by the Local Government Board. It was resolved that the Joint Board, " believing it to be of paramount importance to preserve an isolation hospital for the exclusive treatment of Smallpox," could not avail themselves of the suggestion made by the Local Government Board; and that they were of opinion " that the Whiteleas Hospital is not a suitable place for the treatment of Tuberculosis."

The alternative proposals that suggest themselves are, firstly, to secure and adapt a suitable house on the outskirts of the town; or, secondly, to utilise the Cleadon site, and to erect here a pavilion for Tuberculosis cases, as the first part of a modern isolation hospital—the latter being the more desirable arrangement. The Cleadon site was acquired in 1907 for the construction of a new Isolation Hospital; and has not yet been utilised.

The Tuberculosis Sub-Committee considered and approved plans for a Dispensary contiguous to the present offices of the Medical Officer of Health, and prepared an estimate of the cost. The Sub-Committee were debarred from submitting a scheme for the Dispensary Unit to the Council, owing to the directions contained in communications from the Local Government Board, from which it was gathered that a complete scheme (with Dispensary, Hospital, and Sanatorium Units) must be prepared and submitted as a whole to the Board.

The Sub-Committee was not prepared to recommend the Council to adopt a scheme for the two residential units (Hospital and Sanatorium) in view of the heavy annual expenditure which the provision of these units would entail upon the ratepayers; the financial assistance available out of Insurance Committee Funds, and the grants offered by the Exchequer, being in the opinion of the Council inadequate for this purpose.

Joint conferences with the County Boroughs of Sunderland, Gateshead, and West Hartlepool were held with regard to the provision of Joint Sanatorium Accommodation; it was resolved that no action be taken for the present in the direction of providing such accommodation.

BACTERIOLOGICAL AND CLINICAL LABORATORY.

The work of the laboratory increased very considerably during the year, the total number of investigations made being more than double the number for 1911. The following Table shows the character and results of the examinations made :—

	Positive.	Negative.	Totals.
Examinations for Tubercle Bacilli	31	20	51
,, Diphtheria Bacilli	13	22	35
Investigations of Widal reaction (Enteric Fever)................	19	11	30
Diagnostic Tuberculin Tests	24	18	42
Examinations for Amoeba Dysenterica ..	..	2	2
,, Gonococci	..	2	2
,, Diplococcus Intracellularis Meningitidis	1	1	2
,, Malaria Parasite	1	..	1
Totals	89	76	165

The Tuberculin test chiefly employed was the quantitative von Pirquet reaction.

Provision for the examination of milk for tubercle bacilli by means of inoculation methods is needed. Ordinary bacteriological examinations of suspected milk are of little real value.

Medical practitioners undertaking treatment of insured persons under the National Insurance Act are now expected to make use of all "modern methods of diagnosis." Modern methods of diagnosis include a large number of investigations for which a busy general practitioner has neither time, nor special apparatus and training. Such investigations as the determining of the opsonic power of the blood, differential blood-counts, examination of pathological sections, the Wassermann reaction, etc., can be carried out only in a properly equipped laboratory.

It seems reasonable to expect that the Insurance Commissioners, in deliberating as to how facilities for laboratory diagnosis are to be provided, will take cognisance of existing municipal and county laboratories. These are now established in connection with the Health Departments of most Counties and County Boroughs. An extension of their equipment could easily be made to cover the required ground, and the extra cost of upkeep, etc., met by contributions from the special funds at the disposal of local Insurance Committees.

PREVENTION OF MORTALITY IN CHILDBIRTH AND INFANCY.

(A) SUPERVISION OF MIDWIVES.

1. The Authority under the Midwives Act, 1902.

The Council is the authority under the Midwives Act, 1902. In accordance with the provisions of section 9, the powers conferred upon the Council by the Act have been delegated to the Health Committee.

2. Staff for Supervision of Midwives, etc.

The Health Visitor on the staff of the Department is responsible, under the Medical Officer of Health, for the inspection of midwives, and visitation of homes where births have occurred. During the year Miss Imeson, the previous Health Visitor, resigned her appointment, and was succeeded by Mrs. Arthur. From April to September Mrs. Arthur was away from the Borough receiving training for the Central Midwives Board examination, which she passed successfully. During her absence Miss Dorothy Hopkinson, C.M.B., acted as temporary Health Visitor. These changes in the staff interfered considerably with the work of the year; and a further handicap was the large amount of extra work thrown on the Health Visitor in connection with the investigation of cases of Pulmonary Tuberculosis.

3. Number of Cases attended by Midwives practising in the Borough.

(*a*) CERTIFIED TRAINED MIDWIVES.—At the end of 1912 there was only one certified trained midwife practising in the Borough, one other trained midwife having left the town during the year. During 1912, 30 cases were attended by these trained midwives.

(*b*) CERTIFIED UNTRAINED MIDWIVES.—There were, at the end of 1912, 23 certified midwives practising within the Borough who have not undergone a course of training. (Under Section 2 of the Midwives Act, *any* woman who had been in practice as a midwife for one year previous to the passing of the Act, could claim to become " certified " if she applied within two years after the passing of the Act. In this way a large number of untrained women became certified. This number will automatically diminish as the older women cease practising, until there are no midwives on the register who have not been adequately trained).

During 1912, the cases attended by these certified untrained midwives numbered 1,336.

These figures represent only the number of cases notified voluntarily by midwives. The Notification of Births Act is not in force within the Borough.

Six of these women are over seventy years of age.

(*c*) UNCERTIFIED "MIDWIVES."—Section 1 (1) of the Midwives Act provides that "After the 1st April, 1910, no woman shall habitually and for gain attend women in childbirth (otherwise than under the direction of a qualified medical practitioner) unless she be certified under this Act," the penalty on summary conviction not to exceed £10.

In spite of this provision, and in spite of repeated warnings, uncertified women have continued to practise within the Borough after the above date. Evidence is being collected with a view to proceedings being taken against certain of these women who are practising illegally.

One of the three cases of Puerperal Fever notified during the year was attended by an uncertified woman ; the patient died.

4. Visits of Inspection paid to Midwives by Health Visitor.

106 visits were paid to midwives during the year. The Health Visitor reports that the appliances, bags, and case-books were found to be on the whole in a satisfactory condition. In many cases the midwives' dress is unsuitable. Many of the older women can neither read nor write. Entries are made in their register by friends from time to time, but such entries are chiefly guess-work, and probably a considerable number of cases is unrecorded.

The following are the contents of an open postcard received by the Health Visitor from a certified midwife :—

> " Sunday Dear Nurse Authur,
>
> I was called to Poor Woman in ——— St. Nov. 27 Mrs.——— one of Dr.——'s Patients I am Dauching 3 times a day the uethera as an odour. The Woman is verry weak and has 3s. a week from the Parrsh. Thare is no prospect of a fee for my Proffessional Service. Yours Truly ————."

Where necessary instruction and advice were given. Boracic acid has been supplied to midwives in some instances, and they have been urged to show mothers how to use it.

One midwife was notified as suffering from Erysipelas.

5. Visits paid by Midwives to the Health Department.

15 visits were paid by midwives to the Health Department for instruction in connection with their work.

6. Notifications from Midwives.

In accordance with Rule E. 20, the following notifications have been received from midwives :—

Stillbirths	34
Sending for medical help—	
(*a*) Abnormal Labour	20
(*b*) Delicate or Premature Infants	6
(*c*) Deaths of Infants	5

7. Cases of Puerperal Fever attended by Midwives.

During the year 3 cases of Puerperal Fever were notified within the Borough. In one of these cases the labour had been attended by a certified midwife; the patient recovered. (See pages 18 and 41).

8. Prima facie Cases of Negligence.

One case of this nature was reported to the Midwives Act Sub-Committee in September, 1911. The midwife concerned had attended a woman in childbirth. After the birth the woman became seriously ill. Four days after the birth a medical practitioner was called in, but the woman died of Puerperal Fever the following day. The full facts of the case were laid before the Midwives Committee. The Committee, being satisfied that a prima facie case of negligence existed, resolved that the matter be reported to the Central Midwives Board.

The Central Midwives Board was communicated with on October 19th, 1911. On December 18th, 1912, the woman was removed by the Board from the Midwives Roll.

(B) VISITS TO HOMES WHERE BIRTHS HAVE OCCURRED.

1. Number of first visits paid.

3,352 births were registered in the Borough during 1912.

1,219 first visits were paid during the year by the Health Visitor to houses where the birth of an infant had occurred. Advice and instructions were given to the mothers on infant feeding and management, and on the need for cleanliness and decency in their homes. There were numerous cases of inflamed eyes among infants, many of which were directly caused by want of cleanliness. The Health Visitor had reason to suspect that in many instances the midwife had not attended regularly and daily.

2. Number of second and subsequent visits paid.

Only 99 re-visits were paid, chiefly in regard to infants in delicate health. Supervision was, however, urgently required in many other cases—for example, where the mothers were careless or neglectful of their homes and of their infants. The need for voluntary agencies to co-operate with the Health Department is referred to below.

3. Feeding of Infants.

The Health Visitor reports that of the 1,219 infants visited, about 80 per cent. were breast-fed.

It is difficult to give accurate figures as to infant feeding in the Borough. From one visit it is hardly possible to say how a child is fed; but bottle-feeding is not considerable. On the whole children are breast-fed longer than they should be: children are often weaned at 18 months—sometimes they are nursed till they are two years old.

4. Prevention of Summer Diarrhoea in Infants.

Early in the year I prepared a list of instructions on the prevention, cause, etc., of Infantile Diarrhoea. This was printed on cards, which were distributed to mothers by the Health Visitor. The instructions were as follows :—

Cause.

Epidemic Diarrhoea of infants and young children is an infectious disease.

The infection is present in dust and dirt. These are carried about by the wind and by flies, especially during the warm dry summer months.

Symptoms.

The commonest symptoms are diarrhoea, vomiting, wasting, and convulsions.

The disease may cause death in a few hours ; more often it lasts one or two weeks ; in some cases seven or eight weeks elapse before death occurs or the child begins to recover.

Almost as many healthy children as delicate children are attacked by the disease.

During the year 1911, 103 infants under one year old died from the disease in South Shields.

Prevention.

Breast-fed infants seldom develop Epidemic Diarrhoea. Mothers should invariably nurse their infants unless advised by a doctor not to do so. See that the nipple is absolutely clean and that the child's lips are carefully sponged before it is put to the breast.

Bottle-feeding should only be resorted to when breast-feeding is impossible, or when the child is being weaned. A boat-shaped bottle should be used, without a tube. The milk must be got fresh twice daily and kept covered and perfectly clean ; milk which has been polluted by dust or flies is poisonous.

Weaning :—Infants should not be weaned during the warm summer months, June—September.

Cleanliness of the home is essential. Floors must be kept well scrubbed, and plenty of sunshine and fresh air admitted to the rooms. Yards should be frequently flushed with fresh water. No refuse of any kind should be allowed to collect.

Cure.

If symptoms of the disease appear, consult a doctor at once. Delay in obtaining skilled medical advice may mean the loss of the child's life.

5. Voluntary Agencies.

In my last Annual Report, I referred to the good which can be done in all departments of Public Health work by a committee of voluntary workers. Such a committee would have for its object, firstly, the study of all the influences which adversely affect the health of the community ; and secondly, the removal of many of these influences by co-operation with the official work of the Health Department.

One field of work conspicuously open for such agencies is that concerned with the prevention of infant mortality. At present when a child is visited by the Health Visitor particulars regarding its birth, parentage, etc., are entered on a card, so that a permanent record is kept at the Health Department of each case dealt with. Generally, it is not possible for more than one such visit to be paid to each case. Were it possible for duplicates of these cards to be passed on to voluntary workers, who would each undertake to visit the houses in a certain district, the information obtained by the Health Visitor at her first visit could be made use of, and a saving in infant life undoubtedly effected. Infant mortality is not a weeding out of weaklings ; the children who succumb to Infantile Diarrhoea, for example, are frequently robust and healthy specimens. They fall victims to the unnatural and unhealthy influences in their environment.

(C) ENQUIRIES REGARDING DEATHS OF INFANTS.

109 out of a total of 356 deaths of infants under one year old were investigated.

Miss Dorothy Hopkinson, in reporting to me on this subject, states :—" The poverty of the average seaman's family is very obvious. The wife has, usually, £2 10s., which must last a month, till her husband returns. If the baby is born while the father is away, the mother engages the cheapest (*i.e.*, the most incompetent) midwife to attend her. In one such case the child was stillborn. The father had been away for four weeks, and there was no money to pay for the burial of the child. The body was kept for more than a week because the father's return was expected, and the mother, therefore, hoped that she would not have to apply to the Guardians for relief. Those who apply to the Guardians seem to lose any compunction about doing so, and those who do not, often suffer the greatest poverty." (See also page 10).

FOOD INSPECTION AND WATER SUPPLY.

(A) FOOD SAMPLES TAKEN FOR CHEMICAL ANALYSIS.

One hundred and fifty samples were taken during the year, and submitted to the Borough Analyst. Of these, 13 were informal samples—1 of milk, 6 of butter, 3 of margarine, and 3 of lard. The following are particulars of the nature of the samples taken, of the results of the analysis, and of the action taken in certain cases :—

1. Milk.

74 samples were taken.
64 were "genuine."
5 were deficient in natural fat, as follows :—
Deficiency—1.6%; 3.3%; 5.0%;—No action taken.
Deficiency—3.3%—Letter of caution sent.
Deficiency—10%—Proceedings taken; fined 20s. and costs.
4 were deficient in non-fatty solids, as follows :—
Deficiency—3.4%; 3.4%; 4.2%; 4.9%;—Letters of caution sent.
1 was deficient in non-fatty solids and natural fat—23.3% and 4.4% respectively—Proceedings taken; fined 20s. and costs.

Of the 74 samples of milk, 1 was taken at the railway station; this sample was "genuine."

The average quality of the samples taken was better than those taken in 1911, as shown in the following Table :—

		Average Milk-fat.	Average Non-fatty Solids.
1911	Total samples (78)	3.59	8.75
	Genuine samples (61)	3.71	8.84
1912	Total samples (74)	3.66	8.78
	Genuine samples (64)	3.76	8.84

It must be remembered that the minimum of quality generally adopted as a standard (milk fat, 3%; non-fatty solids, 8.5%) represents a milk of *very poor quality.*

2. Butter.

21 samples were taken.
20 were "genuine," (6 informal samples).
1 contained boric acid, 0.05%. No action taken.

3. Margarine.

8 samples were taken, (3 informal).

6 contained boric acid, as follows :—

Proportion—0.11%; 0.12%; 0.14%; 0.15%; 0.22% (informal); 0.5% (informal).—No action taken.

4. Whiskey.

6 samples were taken. 5 were genuine. 1 was 27.5% under proof—Letter of caution sent.

5. Other Substances.

41 samples, all of which were genuine, were taken of the following substances :—Lard (9 : 3 informal) ; Rum (6) ; Mustard (6) ; Pepper (6) ; Vinegar (6) ; Sweets (2) ; Ground Rice (2) ; Cheese (1) ; Baking Powder (1) ; Oatmeal (1) ; Egg Powder (1).

(B) VISITS OF INSPECTION PAID TO PREMISES.

During the year the Inspector of Meat, etc., paid 4,281 visits to premises where the various trades under his supervision were carried on. These visits were paid as follows .—

Butchers' Shops	1,571
American Meat and Fish Shops	2,054
Fried Fish Shops	127
Fish-curing Places	7
Milkshops and Dairies	427
Cowsheds	33
Bakehouses	48
Tallow-boiling Place	1
Triperies	7
Gut-scraping Places	6

The number of such premises existing at the end of the year is as follows :—

Butchers' Shops	74
American Meat Shops	76
Pork Butchers' Shops	22
Fresh Fish Shops	21
Fried Fish Shops	71
Fish-curing Places	5
Milkshops and Dairies	282
Cowsheds	6
Ice Cream Shops	(varies, 30 to 60)
Bakehouses	51
Tallow-boiling Place	2
Triperies	3
Gut-scraping Place	1

(C) PUBLIC ABATTOIR.

The Municipal Abattoir was erected in 1906. In accordance with the provisions of the South Shields Corporation Act, 1896, and the South Shields Extension Order, 1901, no persons can, except with the consent of the Corporation, slaughter in the way of trade any cattle, sheep, horse, or pig, within the Borough, except in the Public Abattoir. This has been in force since November, 1906; the Abattoir was opened in October of the same year. As there were no registered slaughterhouses in the Borough, no compensation was paid by the Corporation.

The *Site* covers an area of about one acre.

Direct Access to the Abattoir from the railway is provided by means of a private subway.

The Lairage Building provided for cattle, calves, and sheep is 156 feet long by 23 feet broad, and is divided into seven compartments, three of which are for sheep and four for cattle.

The Main Slaughterhall is 146 feet long by 27 feet broad. The Cooling Hall, *i.e.*, storage for cooling and stiffening, is 107 feet long by 20 feet broad, and will accommodate the carcases of 500 beasts, sheep, and other animals.

Cold Storage is provided in which is installed Linde's refrigerating plant, capable of maintaining a temperature of 35 degrees Fahrenheit.

Accommodation is also provided for *Pig Slaughtering*, and there are *Cooling Halls* in connection therewith, *Tripery*, *Gut Scraping*, etc.

The following Table gives the numbers of animals slaughtered in the last six years :—

	1907.	1908.	1909.	1910.	1911.	1912.
Beasts	5,248	5,157	4,444	4,266	4,221	3,553
Calves	735	730	564	435	270	290
Pigs	8,146	8,320	6,465	5,675	7,019	7,525
Sheep	30,620	33,968	36,450	36,010	36,351	34,318
Total	44,749	48,175	47,923	46,386	47,861	45,686

The outbreak of Foot and Mouth Disease was accountable for a decrease in the number of animals slaughtered during July and August.

There has, however, been a continuous decrease in the number of cattle slaughtered at the Abattoir during the last five years.

The number of carcases, etc., condemned at the Abattoir during 1912 will be found in the next paragraph.

(D) FOOD CONDEMNED AND DESTROYED.

The following are particulars of the food condemned and destroyed during the year :—

1. At the Abattoir.

Beasts : 24 Carcases (23 Tuberculosis, 1 Peritonitis and Emaciation).
1 Forequarter (Tuberculosis).
1 set of Lungs, Liver and Stomach (Tuberculosis).
3 sets of Livers and Lungs (2 Tuberculosis, 1 Abscesses).
2 sets of Lungs and Hearts (1 Pericarditis, 1 Pericarditis and Ulcers).
14 sets of Lungs (Tuberculosis).
4 Livers (3 Cirrhosis, 1 Flukes).
1 Head and Tongue (Actinomycosis).
Calf : 1 Carcase (Dropsy and Emaciation).
Sheep : 18 Carcases (8 found dead, 5 Dropsy and Emaciation, 3 Suffocation, 1 Dropsy, 1 Pleurisy).
Pig : 1 Carcase (found dead).

2. Outside the Abattoir.

(Including food-stuffs sent for convenience to the Abattoir to be examined by the Food Inspector).

Beasts : 2 Bellies and 8 Feet (Decomposition).
Tongue, Kidney and Tail (Decomposition).
29 lbs. frozen Liver and Trimmings (Decomposition).
9 Hearts and 4 Tails, frozen (Decomposition.
1 Liver, frozen (Decomposition).
Calves : 5 Carcases of Veal (Decomposition).
Pigs : 2 Carcases (1 Tuberculosis, 1 found dead).
Tripe : 57 lbs., frozen (Decomposition).
Fish : 1 cwt. (Decomposition).
Oranges : Box of (Decomposition).
Potatoes : 20 tons (Decomposition).

(E) OUTBREAKS OF FOOD POISONING.

A Memorandum was issued by the Local Government Board in September, 1911, dealing with outbreaks of illness, other than cases of the notifiable infectious diseases, which might be suspected to have been caused by the consumption of some article of food. In accordance with the suggestions in the Memorandum, the Medical Officer of Health is authorised by the Council to sake such steps as he may consider necessary in any emergency that may arise.

During the past year there were no outbreaks of food poisoning reported within the Borough.

(F) WATER SUPPLY.

A Joint Committee, representing the Durham County Council and the County Boroughs of Sunderland and South Shields, was appointed at the end of 1911, and made arrangements for the bacteriological examination by Prof. Hutchens, of water from the various reservoirs and wells, samples to be taken monthly over a period of twelve months from each of the sources of supply.

These examinations have not yet been completed.

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

(A) INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

The Sanitary Inspectors have paid 645 visits during the year. Written notices were sent out in 28 cases; there were no prosecutions. The details are as follows :—

1. **Factories** (including Factory Laundries).
   Inspections, 41 ; Notices, 14.
2. **Workshops** (including Workshop Laundries).
   Inspections, 359 ; Notices, 13.
3. **Workplaces** (other than Outworkers' Premises).
   Inspections, 245 ; Notices, 1.

(B) DEFECTS FOUND ON INSPECTION.

The defects found are summarised in the following Table :—

Particulars of Defect.	Number of Defects.				Number of Prosecutions.
	Found.	Remedied.	Receiving Attention.	Referred to H.M. Inspector.	
*Nuisances under the Public Health Acts** :—					
Want of cleanliness	17	15	2	..	..
Want of ventilation	5	5	..	..	..
Overcrowding	1	..	1	..	..
Want of drainage of floors	..	..	..	..	..
Other nuisances	7	7	..	..	..
Sanitary accommodation—					
Insufficient	12	10	2	..	..
Unsuitable or defective	5	4	1	..	..
Not separate for sexes	2	2	..	..	..
Offences under the Factory and Workshop Act :—					
Illegal occupation of underground bakehouse (s. 101)	..	..	..	..	..
Breach of special sanitary requirements for bakehouses (s. 97 to 100)	..	..	..	..	..
Other offences (excluding offences relating to Outwork)	..	..	..	..	..
Total	49	43	6	..	..

* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

(C) REGISTERED WORKSHOPS.

The following 311 workshops were on the Register at the end of the year :—

Making of Wearing Apparel	125
(Dressmakers, 38 ; Tailors, 22 ; Milliners, 27 ; Boot Repairers, etc., 24 ; Laundries, 9 ; others, 5).	
Preparing of Food-stuffs, etc.	69
(Bakehouses, 51 ; Fish Curing, 5 ; Tripe Preparing, 3 ; Salt Packing, 3 ; Pickle Works, 2 ; Sweets and Jam Making, 2 ; Beer Bottling, 2 ; Drysalter, 1.)	
Joinery, etc.	49
(Joinery, 30 ; Cabinet Making and Upholstery, 11 ; Cartwrights, 5 ; Picture Frame Makers, 2; Cooper, 1)	
Plumbers, etc.	25
(Plumbers, 11 ; Smiths, 11 ; Ship Repairer, 1 ; Engineer, 1 ; Boiler Composition Maker, 1).	
Watch Repairers, etc	25
(Watch Repairers, 10 ; Photographers, 4 ; Scale Makers, etc., 3 ; Cycle Repairers, 3 ; Lithographer, 1 ; Compass Maker, 1 ; Wire Work, 1 ; Signwriter, 1 ; Printer, 1.)	
Others	18
(Sadlers, 4 ; Sail Makers, 3 ; Umbrella Repairers, 2 ; Rag Stores, 2 ; Sculptors, 2 ; Plasterer, 1 ; Slater, 1 ; Firewood Maker, 1 ; Candle Maker, 1 ; Sack Repairer, 1.)	

(D) HOMEWORK.

The number of Outworkers in the Borough is very small.

Three half-yearly lists were received from three employers who employ a total of 6 workmen in the making of wearing apparel.

One list was received from one employer who employs three workers in the making of household linen.

There were no prosecutions during the year. One letter was sent to an employer with regard to sending in lists of Outworkers as provided by section 107. There were no instances of outwork in unwholesome premises (sect. 108) or on infected premises (sect. 109, 110).

(E) OTHER MATTERS.

The following matters call for report :—

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	13
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) :—	
Notified by H.M. Inspector	31
Reports (of action taken) sent to H.M. Inspector	28
Receiving attention at end of year	3
Other	..
Underground Bakehouses (s. 101) —	
Certificates granted during the year	..
In use at the end of the year	1

(F) SHOPS ACT.

On December 10th, 1912, Mr. W. Smith was appointed Inspector under the Shops Act, his work to be carried out under the direction of the Medical Officer of Health.

The "South Shields Holiday Resort Order" (June, 1912) exempted all shops from the obligation to close on the weekly half-holiday under the provisions of the Act during the months of June, July, August, and September.

The "Ocean Road Exempted Area Order, Stationers, etc." (October, 1912) exempted within the prescribed area certain retail trades and businesses from the obligation to close on the weekly half-holiday. The "Tyne Dock Exempted Area Order, Grocers, etc.," similarly exempted certain retail businesses within the area defined.

In December the Town Council decided, as a result of the voting of shopkeepers, to take no action as to making an Order for a general Weekly Half-holiday.

HOUSING CONDITIONS WITHIN THE BOROUGH.

(A) PROCEDURE ADOPTED FOR SYSTEMATIC INSPECTION OF DWELLINGS.

The Housing, Town Planning, etc., Act, 1909, section 17 (1), provides that every local authority shall cause to be made from time to time inspection of their district, with a view to ascertaining whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation.

The Housing (Inspection of District) Regulations, 1910, article 1 (1), provide that every local authority shall *determine the procedure* to be adopted to give effect to the requirements of the subsection of the Housing, Town Planning, etc., Act, referred to above. The following is a summary of the procedure determined by the Council in December, 1911 :—

(1) Inspection of the dwelling-houses in the Borough to be made from time to time according to their varying needs or circumstances.

(2) Records of these inspections to be prepared. (A card-index system is now in use ; a card is prepared for each dwelling-house, and on each card is entered the information specified in the Regulations.)

(3) The records of such dwelling-houses as should, in the opinion of the Medical Officer of Health, be visited by the Housing Sub-Committee to be submitted monthly or periodically to the Health Committee.

(4) The Health Committee to refer these to the Housing Sub-Committee with instructions to inspect and report their recommendations.

(5) The Housing Sub-Committee to report to the Health Committee, and where considered desirable recommend that Closing Orders be made.

(B) SUMMARY OF ACTION TAKEN UNDER THE HOUSING ACTS DURING 1912.

1. **Number of dwelling houses inspected.**

Number of dwellings inspected with a view to procedure under the Housing Acts................ 68

2. Dwellings unfit for habitation.

Number of dwellings which, on inspection, were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation 32

3. Representations.

Number of dwellings in respect of which representations were made to the local authority with a view to the making of closing orders 32

4. No action taken by local authority.

Number of dwellings in respect of which representations were made, but no action was taken by the local authority 0

5. Dwellings rendered habitable.

Number of dwellings rendered habitable :—

(*a*) without representation 25
(*b*) after representation, but without closing order 2
(*c*) after closing order........................ 3
—— 30

6. Dwellings closed.

Number of dwellings closed :—

(*a*) without representation (basement dwellings) 3
(*b*) by closing order.......................... 33
—— 36

7. Dwellings demolished.

Number of dwellings demolished :—

(*a*) without representation.................... 1
(*b*) after closing order, but without demolition order 2
(*c*) after demolition order.................... 6
—— 9

8. Appeals.

Two appeals were made to the Local Government Board: one, subsequently abandoned, against closing orders for nine houses in Military Road; the other in respect of the non-determination of a closing order for a house which had been partially repaired. The latter appeal was outstanding at the end of 1912.

9. General character of defects.

The principal defects which call for attention may, for practical purposes, be divided into two groups :—

(1) Those defects inherent in the construction of the house, or arising out of its relation to surrounding properties.

(2) Those defects which have arisen from lack of sufficient attention on the part of the owner of the property, or neglect and misuse by tenants.

In the first class are conditions which, generally speaking, are not aggravated by neglect; such as damp walls due to absence of damp-proof courses, or caused by the walls having been built against hillsides; dampness due to floors having been laid directly on the ground; defective lighting arising from deficient window space or from the house having been built in too close proximity to neighbouring buildings; absence of through ventilation in "back to back" houses; and deficient yard space. These are defects which nothing but reconstruction can repair.

In the second class are defects which have developed since the construction of the property, such as dampness due to defective spouting or leaking roofs; defective yard surfaces; dilapidated flooring, window-sashes, etc. For such progressive degeneration of property careless tenants are frequently partly to blame. It is obvious, too, that defective lighting can arise from windows obscured by dirt or an unnecessary profusion of curtains; that perhaps the most general cause of badly ventilated rooms is unwillingness to use the facilities provided for ventilation. The fetid atmosphere met with, summer and winter, in so many poor class dwellings is in most instances directly attributable to tightly shut windows.

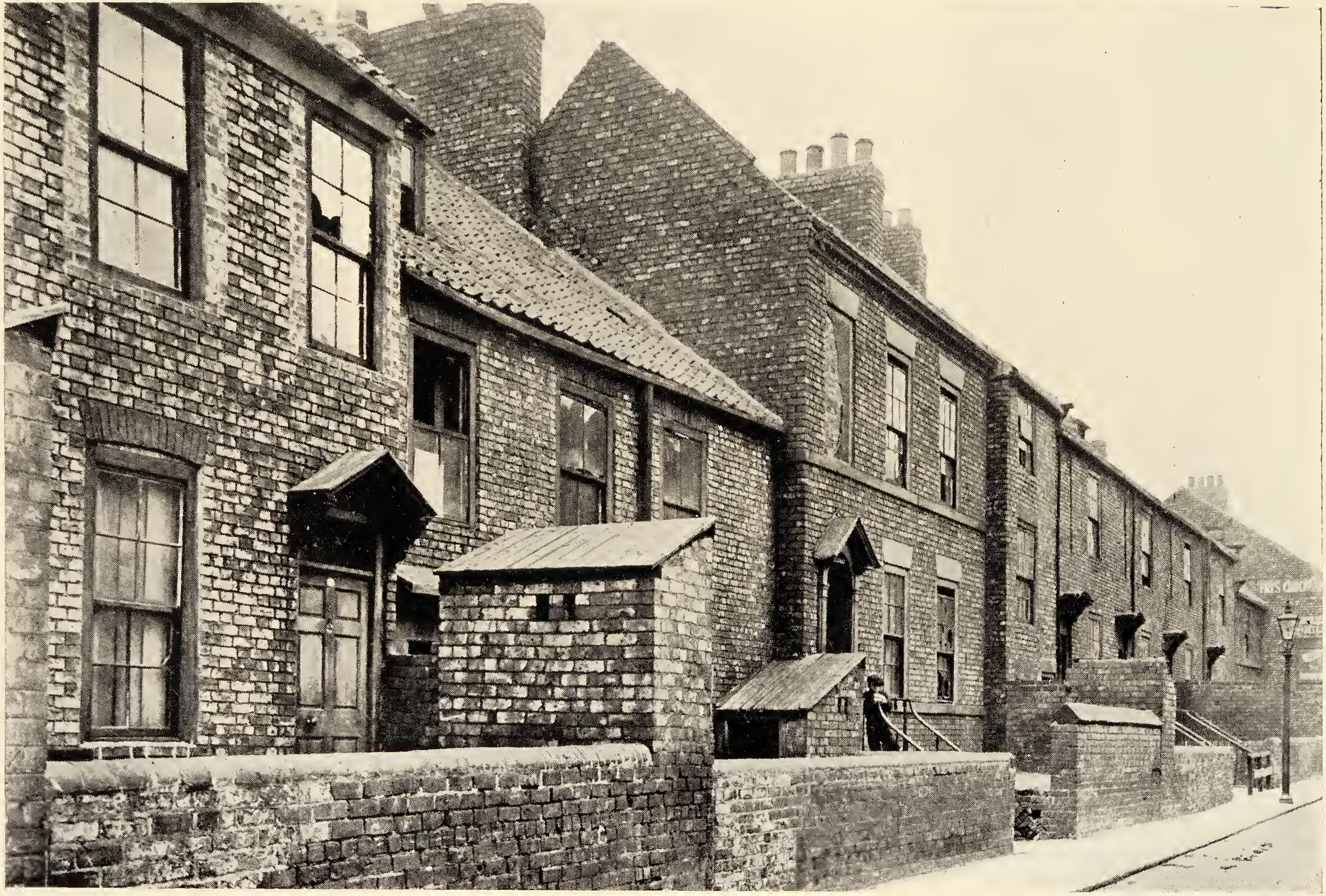
But what can reasonably be aimed at in taking action under section 17 of the 1909 Housing Act is the securing of houses with a certain minimum of structural efficiency; houses which, *if properly used*, will provide healthy dwellings for the tenants inhabiting them.

10. Situation of houses dealt with.

The following is a list of the houses dealt with during 1912.

(In this list, the unit for a "dwelling-house" is considered to be a property bounded by four main walls. A tenemented house say of 5 tenements, let to 5 tenants, is regarded as one house, not as 5 houses).

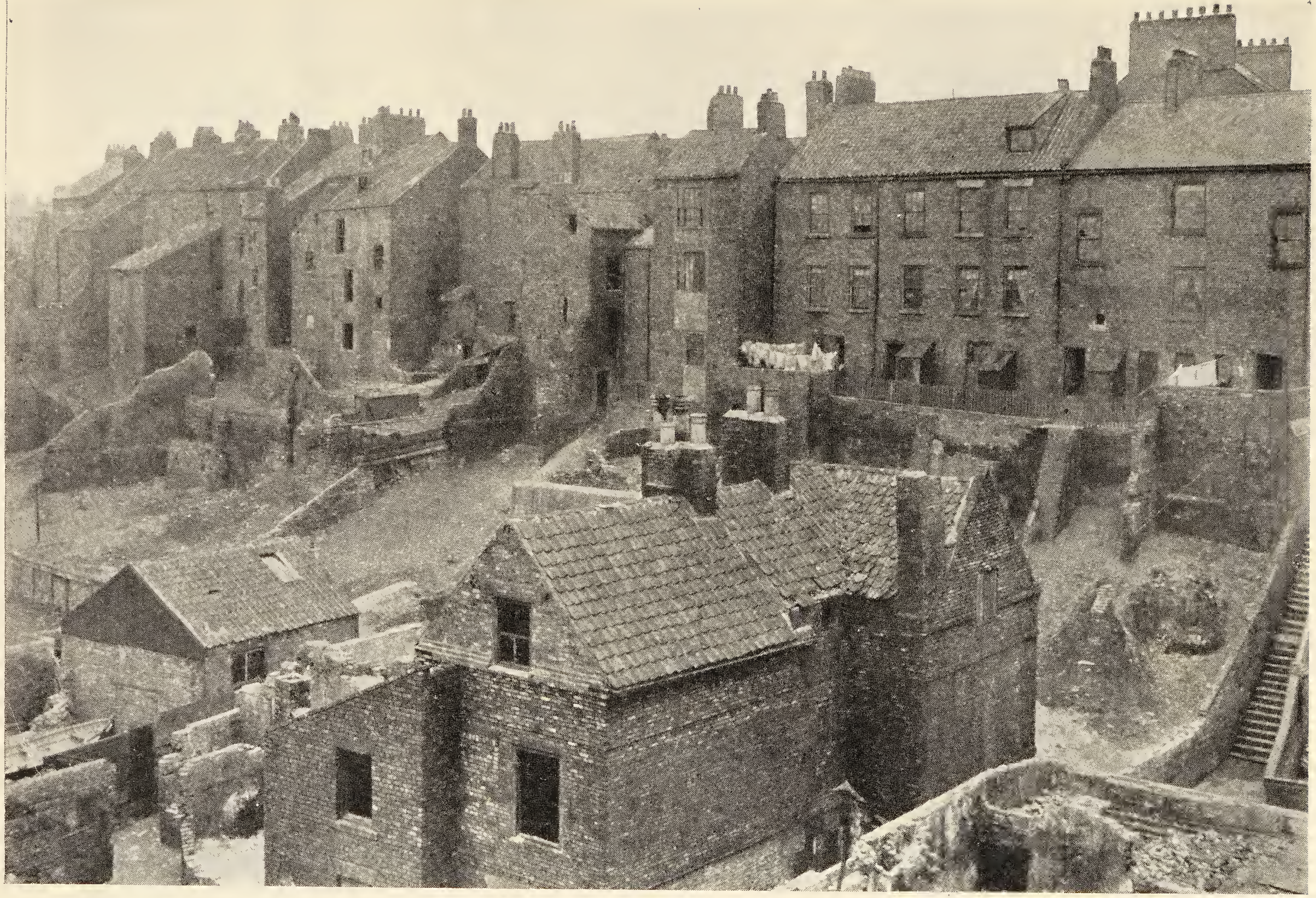
Situation of Premises.	No. of Houses.	M.O.H.'s Representation.	Closing Order made by Town Council.	Demolit'n Order made by Town Council.	Remarks.
6-12 Albion Street	1	...	...	...	Repaired under Public Health [Act.
40-44 William Street	1	...	...	...	do.
32 Thames Street	Prt.	28/2/12	3/4/12	...	Demolition adjourned.
Spotted Bull, Saltwell Lane	1	28/2/12	3/4/12	29/4/13	Partly collapsed 24/2/12.
62-66 Wapping Street	1	28/2/12	3/4/12	14/1/13	Being demolished.
9 Tyne Street	1	28/2/12	3/4/12	...	Borough Engineer to report on condition.
Spring Lane	1	28/2/12	3/4/12	14/1/13	Roof smashed in 24/2/12.
5-12 Heugh Terrace	4	20/8/12	4/9/12	...	Being repaired.
15-31 Military Road	9	19/11/12	4/12/12	..	An appeal against the closing order was abandoned on 18/1/13.
Wapping Street (Stob Lane)	1	24/10/11	6/3/12	...	Demolition adjourned.
28 Long Row	1	24/10/11	6/12/11	...	Being repaired.
17-18 & 19-20 Thames Street	2	22/10/10	7/12/10	6/12/11	Demolished 14/10/12.
5-6 Wapping Street	1	24/10/11	6/12/11	...	Mostly demolished 3/9/12.
98-100 do.	1	24/10/11	6/12/11	...	do. 26/4/12.
102-104 do.	1	24/10/11	6/12/11	...	Demolished 12/2/12.
Saltwell Lane	1	24/10/11	6/12/11	...	Collapsed 24/2/12.
4 Coronation Street	1	...	...	...	Basement dwelling; closed.
6 do.	1	...	...	...	do. do.
2 Garden Lane	1	...	...	...	do. do.
14 Nelson's Bank	1	20/2/12	6/3/12	...	Demolished without demolition order. Site utilized for yard extension.
9 Chapel Hill	1	20/2/12	6/3/12	...	Repairs in hand.
10 do.	1	20/2/12	6/3/12	...	Large attic permanently closed.
7-8 do.	1	14/5/12	4/9/12	...	Closed.
49-51-53 East Holborn and 2 Bottle Bank	1	14/5/12	5/6/12	...	Outshot room and cellar closed
55-57-59 East Holborn	1	14/5/12	5/6/12	...	Room (outshot) closed.
65-7 do.	1	14/5/12	5/6/12	...	Whole of build'g at back closed.
73 do.	1	14/5/12	5/6/12	. .	1 room and cellar at back closed
75-7 do.	1	14/5/12	5/6/12	...	Shop and room on ground floor closed.
Hart's Court	1	14/5/12	5/6/12	...	Whole house closed.
2 Swan's Hill & 16 Back	1	20/8/12	4/9/12	...	do. do.
6 do. & 17 Back	1	20/8/12	4/9/12	...	Outshot room collapsed.
1 Gibson's Place & 16 Back	1	20/8/12	4/9/12	...	Whole house closed.
2 do. & 13, 14, 15 Bk.	1	20/8/12	4/9/12	...	do. do.
9 Cone Street & 3 Back	1	...	...	...	
15-17 do. & 9 Back	2	...	...	...	Repaired under P.H.A. 1875.
7-8 Pleasant Place	2	...	...	...	
1-2-3 do.	1	...	...	...	
15-16 Nelson's Bank	2	...	...	...	
9 do.	1	...	...	...	
3-5-7-9 Forrest Hill	1	...	...	...	
11-13 do.	1	...	...	...	
32 East Holborn	1	..	...	...	
38 do.	1	...	...	..	
40 West Holborn	1	..	...	...	
42 do.	1	...	...	...	
Point Ferry Landing	1	. .	...	. .	
22 Commercial Road	1	...	...	...	
72 do. and 2 Windmill Hill	1	..	...	...	
19-21-23 Peel Street	1	...	...	...	
31-33 Raglan Street 35-37 do. 39-41 do.	3	...	...	...	
3-5 East Holborn	1	...	..	...	Repaired; attic permanently closed.



(Fig. 1)

(Photo by Mr. J. H. Cleet, South Shields.)

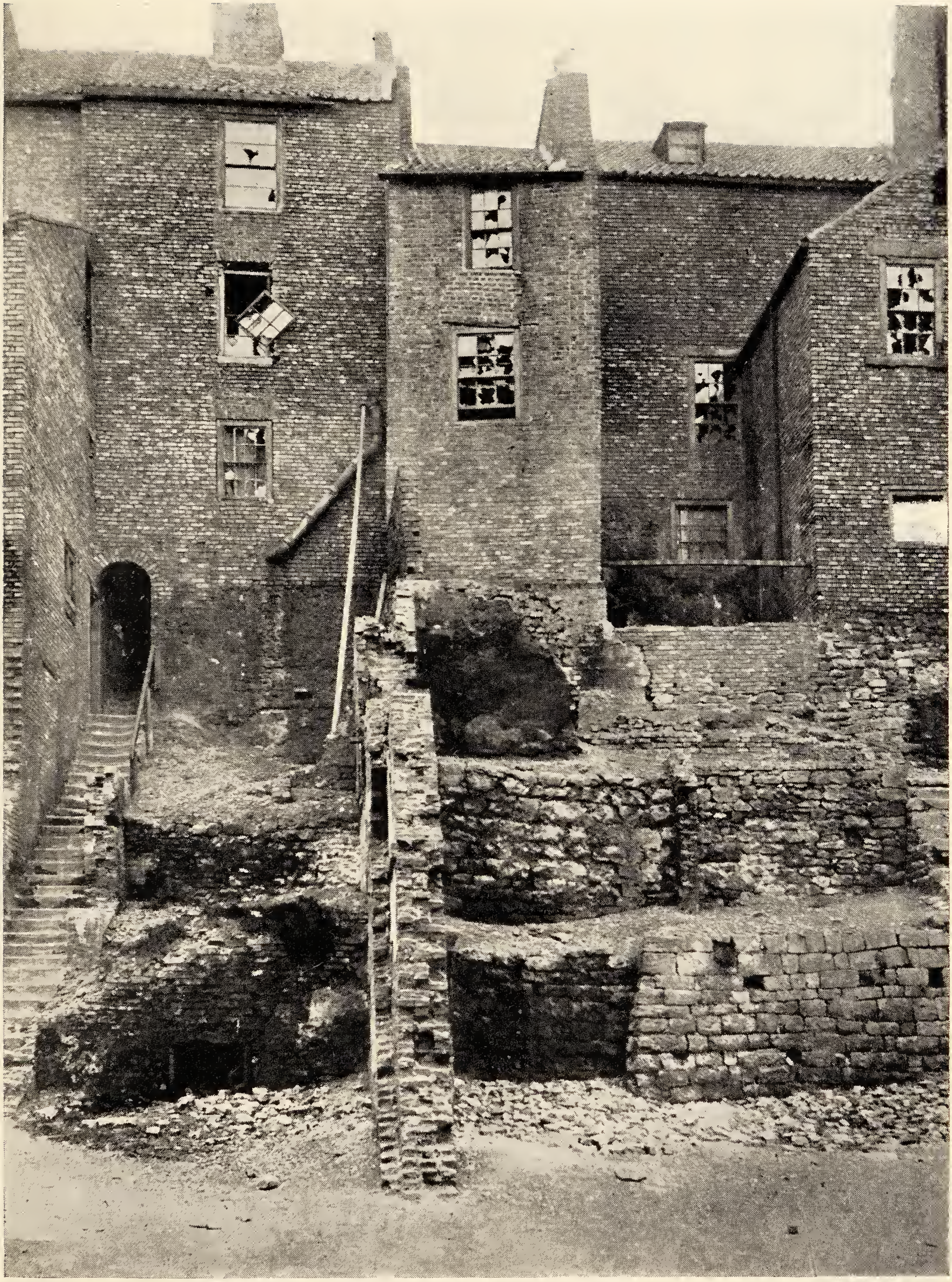
MILITARY ROAD.—Front of houses (facing South). Closing Orders were made by the Town Council on the 4th December, 1912, for nine of the houses shown. Approaches to forecourts now built up.



(Fig. 2.)

(Photo by Mr. J. H. Cleet, South Shields.)

MILITARY ROAD.—Back of houses (facing North and overlooking the mouth of the Tyne), including on the left a general rear view of Fig. 1. In the foreground is Shadwell Street near Hospital Quay, showing a house for which a demolition order has been made.



(Fig. 3.) (Photo by Mr. J. H. Cleet, South Shields.)

MILITARY ROAD.

Back of houses (facing North). A close view, showing how houses were "stepped" up; boy standing in public stairway leading to street above. External width of middle house 11 feet. Note effect of subsidence on brickwork.

(C) TOWN PLANNING.

Action taken under section 17 of the 1909 Housing Act is *curative* in character, aiming as it does at having existing insanitary property rendered habitable, closed, or demolished.

Action of a *preventive* nature is possible under Part II. of the Act, which permits local authorities to prepare town planning schemes for undeveloped areas. The great practical value of such schemes is very rapidly becoming appreciated. Without a scientifically thought-out system of town planning the expansion of large towns must continue to be characterised by congested districts, expensive roads, traffic difficulties, ugliness, and monotony.

Cure in the form of street improvements and extensive reconstruction is often an exorbitantly costly process. Intelligent anticipation of probable growth costs nothing, and secures that the development of the future will not be marred by the defects of the past.

Owing to its peculiar natural position, South Shields has practically only one direction for expansion, namely, southwards. It is for the area to the south of the Borough that a Town Planning scheme is required; having for its main objects consideration of the direction, width, etc., of roads; probable tramway routes; the restriction of the number of houses to be built per acre (South Shields at present is one of the most densely populated towns in the country); the provision of shops and open spaces; and the preservation of the amenities of existing districts.

(D) NEW HOUSES.

I am informed by the Borough Engineer that 9 new self-contained houses and 37 new houses of two "flats" each were certified by him during 1912 as fit for occupation.

(E) WATER CARRIAGE AND CONSERVANCY SYSTEMS.

Application was made to the Local Government Board by the Council for permission to adopt section 39, sub-section 2, of the Public Health Acts Amendment Act, 1907. The reply received from the Board was to the effect that this could not be granted unless the whole of section 39 be adopted.

Section 39 (2) gives a local authority power to require that the water-carriage system be installed in all *new* buildings.

The other sub-sections of section 39 give a local authority power to deal with existing buildings. These sub-sections are permissive only, and impose no obligation on the Council to take action under them.

It is extremely regrettable that powers have not been obtained with regard to new property. Under the present system, conservancy methods are still being introduced in practically all new buildings. This may mean that in the near future the owners of such property, and the local authority, may be put to considerable expense which could have been avoided. What it certainly does mean is that a system which, from a health standpoint, is highly undesirable is being perpetuated within the Borough.

(F) COMMON LODGING HOUSES.

There are 24 Common Lodging Houses within the Borough, with registered accommodation for 911 lodgers. At 2 houses there is accommodation for female lodgers, the total number so provided for being 13.

Of these houses, 4 are registered under section 69 (2) of the Public Health Acts Amendment Act, 1907.

The Sanitary Inspectors paid 102 visits to these houses, and 6 defects were dealt with.

The Police paid 1,903 visits ; there were no prosecutions during the year.

(G) SEAMEN'S LODGING HOUSES.

There are 60 Seamen's Lodging Houses within the Borough, with licensed accommodation for 652 seamen.

The Sanitary Inspectors paid 174 visits to these houses during the year, and 2 defects were dealt with.

The Police paid 2,107 visits ; there were no prosecutions during the year.

APPENDIX.

(A) SUMMARIES OF CERTAIN STATISTICS re BIRTHS, DEATHS, AND INFECTIOUS DISEASES.

Table 1—Deaths during 1912 : Causes.
,, 2—Deaths during 1912 : Causes and Ward Distribution.
,, 3—Births and Deaths during 1912 and previous years.
,, 4—Birth-rates and Death-rates for past forty-two years.
,, 5—Infant Deaths during 1912 : Causes and Ages.
,, 6—Infant Deaths during 1912 : Causes and Ward Distribution.
,, 7—Infectious Diseases during 1912 : Cases removed to Hospital, Ages, and Ward Distribution.

(B) SUMMARIES OF THE WORK OF THE SANITARY INSPECTORS DURING 1912.

Table 8—Visits.
,, 9—Defects, etc., for which notices were issued.
,, 10—Structural Work.

(C) SUMMARY OF METEOROLOGICAL OBSERVATIONS DURING 1912.

Table 11—Observations taken daily at Health Department and at the North Marine Park.

TABLE 1.—CAUSES OF DEATH, during 1912, of Persons belonging to South Shields, classified in accordance with the Registrar General's Manual of the International List, as adapted for use in England and Wales.

Causes of Death.	All Ages.	Ages at Death.																				55 to 60
		0-3 Months	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
I.—GENERAL DISEASES.																						
1. Enteric fever	5	..	..	..	..	..	..	..	..	..	..	..	1	2	1	1	..	..	..	..	..	..
2. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. A. Relapsing fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Mediterranean fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5. A. Smallpox—Vaccinated	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. ,, Not Vaccinated	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. ,, Doubtful	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Measles	64	..	1	5	6	29	14	5	3	57	7	..	..	..	..	..	..	..	..	..	..	..
7. Scarlet fever	6	..	..	..	..	2	2	..	..	4	1	1	..	..	..	..	..	..	..	..	..	..
8. Whooping cough	51	5	4	10	19	20	6	2	2	49	2	..	..	..	..	..	..	..	..	..	..	..
9. A. Diphtheria	6	..	..	..	..	..	1	2	1	4	1	1	..	..	..	..	..	..	..	..	..	..
B. Membranous laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Influenza	24	1	2	2	5	..	..	..	1	6	..	..	..	..	1	1	3	8	2	3	..	1
11. Miliary fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15. Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19. A. Mumps	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. German measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

	C. Varicella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	D. Other epidemic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20.	A. Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Septicæmia	4	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	3	..	..	..	1
	C. Vaccinia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21.	Glanders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22.	Anthrax (Splenic fever)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23.	Rabies	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24.	Tetanus	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..
25.	A. Actinomycosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other mycoses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26.	Pellagra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
27.	Beri-beri	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28.	A. Pulmonary tuberculosis (not acute)	84	..	..	..	..	..	1	..	..	1	3	3	5	8	21	23	12	6	1	1	..	3
	B. Phthisis (not defined as tuberculous nor acute)	61	..	..	1	1	..	..	1	..	2	4	2	12	5	15	6	9	4	2	..	..	2
29.	A. Acute phthisis	19	..	..	..	..	..	..	..	1	1	1	1	3	3	2	6	1	1	..	..	..	1
	B. Acute miliary tuberculosis	4	..	..	..	..	..	1	..	..	1	1	1	..	..	1	..	..	..	..	..	..	..
30.	Tuberculous meningitis	16	..	2	2	4	2	..	1	..	7	6	1	1	..	1	..	..	..	..	..	..	..
31.	A. Tabes mesenterica	8	..	..	2	2	2	2	1	..	7	1	..	..	..	..	..	..	..	..	..	..	..
	B. Other peritoneal and intestinal tubercle	13	..	..	..	..	..	2	2	1	5	1	..	1	1	2	1	1	..	1	..	..	..
32.	Tuberculosis of spinal column	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
33.	Tuberculosis of joints	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
34.	Tuberculosis of other organs :—																						
	A. Lupus	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
	B. Scrofula	1	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
	C. Other tuberculosis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
35.	Disseminated tuberculosis	2	..	..	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
36.	A. Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other forms of bone softening	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
37.	Syphilis	8	4	4	..	8	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..
38.	A. Soft chancre	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Gonococcus infection	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Purulent ophthalmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 1.—CONTINUED.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																				55 to 60
		0-3 Months	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards	
39. Cancer of the buccal cavity	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	1	..	..	3
40. ,, stomach, liver, &c.	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	5	11	5	4	1	3
41. ,, peritoneum, intestines and rectum	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	..	5	..	..	..
42. ,, female genital organs	15	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	4	5	1	..	4
43. ,, breast	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	1	..	..
44. ,, skin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
45. ,, other or unspecified organs	14	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	2	3	2	..	2
46. Other tumours (situation undefined) :—																						
A. Angioma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Adenoma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other tumours.............	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
47. Rheumatic fever	4	..	..	..	..	..	..	..	2	2	..	1	..	..	..	1	..	..	..	..	..	..
48. A. Chronic rheumatism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Osteo-arthritis	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..
C. Gout	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
49. Scurvy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
50. Diabetes	9	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	2	1	..	..	1
51. Exophthalmic goître............	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
52. Addison's disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
53. A. Leucocythæmia (Leuchæmia)	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
B. Lymphadenoma	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
54. Anæmia, Chlorosis	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1
55. A. Diabetes insipidus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

B. Purpura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Hæmophilia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other general diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
56. Alcoholism (acute or chronic)	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..
57. A. Occupational lead poisoning (chronic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Non-occupational lead poisoning (chronic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
58. Other chronic occupational poisonings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
59. Other chronic poisonings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
II.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																						
60. Encephalitis	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
61. A. Cerebro-spinal fever	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
B. Posterior basal meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Meningitis, other forms	29	1	4	4	9	9	..	..	4	22	2	2	..	1	1	..	1	..	..	..	..	..
62. Locomotor ataxy	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
63. Other diseases of the spinal cord	8	..	..	..	..	..	..	1	..	1	..	..	..	..	1	..	2	3	1	..	..	1
64. A. Apoplexy	27	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	3	7	12	3	..	2
B. Serous apoplexy and œdema of brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Cerebral congestion	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
D. Cerebral atheroma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
E. Cerebral hæmorrhage	57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	8	17	18	7	1	8
65. Softening of brain	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	..	..	..
66. Paralysis without specified cause:—																						
A. Hemiplegia	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	..
B. Paraplegia	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1
C. Other forms of paralysis	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	1	..	1
67. General paralysis of the insane	11	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	5	1	1	..	..	1
68. Other forms of mental alienation	7	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	2	..	1	..	..	..
69. Epilepsy	5	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1	..	..	..	..	..
70. Convulsions (non-puerperal; 5 years and over):—																						
A. Epileptiform convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other forms of convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 1.—CONTINUED.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																				
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	55 to 60
71. Infantile convulsions (under 5 years) :—																						
A. Convulsions with teething	9	1	1	5	7	2	..	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..
B. Other infantile convulsions	48	31	6	7	44	3	1	..	..	48	..	..	..	..	..	..	..	..	..	..	..	..
72. Chorea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
73. A. Hysteria, Neuralgia, Sciatica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Neuritis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
74. A. Idiocy, Imbecility	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Cretinism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Cerebral tumour	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
D. Other diseases of the nervous system	1	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
75. Diseases of the eyes and annexa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
76. A. Mastoid disease	3	..	..	1	1	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..
B. Other diseases of the ear	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..
III.—DISEASES OF THE CIRCULATORY SYSTEM.																						
77. Pericarditis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
78. A. Acute myocarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Infective endocarditis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
C. Other acute endocarditis	8	..	..	..	..	..	..	..	..	..	..	..	1	1	1	2	1	2	..	..	..	2
79. A. Valvular disease	101	..	..	..	..	..	..	1	..	1	1	1	1	1	5	6	13	28	38	5	1	13
B. Fatty degeneration of the heart	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	1	..	..
C. Other organic disease of the heart	85	..	..	..	..	..	..	..	..	..	..	1	1	1	2	8	17	12	28	15	..	5

80. Angina pectoris	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..
81. A. Aneurysm	6	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	2	..	..	..	1
B. Arterial sclerosis	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2	..	..
C. Other diseases of arteries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
82. A. Cerebral embolism and thrombosis	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	1	2	..	1
B. Other embolism and thrombosis	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
83. Diseases of the veins :—																						
A. Phlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Varix	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Pylephlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Varicocele	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
84. A. Status lymphaticus	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the lymphatic system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85. A. Functional disease of the heart	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
B. Epistaxis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of the circulatory system		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV.—DISEASES OF THE RESPIRATORY SYSTEM.																						
86. Diseases of the nasal fossæ	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
87. A. Laryngismus stridulus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Laryngitis	8	..	..	..	..	2	1	3	..	6	1	..	..	..	..	..	1	..	..	..	..	..
C. Other diseases of larynx	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
88. Diseases of the thyroid body	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
89 & 90. A. Bronchiectasis, Bronchial catarrh, &c.	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
B. Other bronchitis	164	17	18	24	59	16	..	2	1	78	2	..	..	..	3	2	4	18	31	22	4	8
91. Broncho-pneumonia	82	4	4	20	28	25	7	6	4	70	3	..	..	..	..	1	1	2	4	1	..	..
92. A. Lobar pneumonia	13	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	2	3	2	..	..	1
B. Pneumonia (type not stated)	42	1	..	2	3	..	2	..	..	5	3	1	2	3	3	3	11	5	5	1	..	2
93. A. Empyema	3	..	..	..	..	..	..	1	1	2	..	..	..	..	1	..	..	..	..	..	..	..
B. Other pleurisy	3	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..

TABLE 1.—Continued.

Causes of Death.	All Ages.	Ages at Death.																				
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	55 to 60
94. A. Pulmonary apoplexy and infarction	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Pulmonary œdema and congestion	4	1	..	..	1	1	..	..	..	2	..	..	..	..	..	..	1	..	1	..	..	..
C. Hypostatic pneumonia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Collapse of lung (3 months and over)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
95. Gangrene of the lung	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
96. Asthma	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	1	..	..	..
97. Pulmonary emphysema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
98. A. Fibroid disease of lung	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
B. Other diseases of the respiratory system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
V.—DISEASES OF THE DIGESTIVE SYSTEM.																						
99. A. Diseases of the teeth and gums	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Thrush, Aphthous stomatitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Parotitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other diseases of the mouth and annexa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
100. A. Tonsillitis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
B. Ludwig's angina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of the pharynx	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
101. Diseases of œsophagus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
102. Perforating ulcer of stomach	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..

103. A. Inflammation of stomach	8	2	..	..	2	1	..	..	..	3	1	..	..	..	..	..	1	1	1	1	..	..
B. Other diseases of stomach	2	1	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..
104 & 105. A. Infective enteritis	4	..	..	2	2	2	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..
B. Diarrhœa—Not returned as infective	15	3	2	5	10	1	..	..	..	11	1	..	..	..	..	1	..	..	2	..	..	..
C. Enteritis—Not returned as infective	7	1	..	..	1	2	..	1	..	4	..	..	..	1	..	..	..	1	1	..	..	..
D. Gastro-enteritis—Not returned as infective	1	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
E. Dyspepsia, under 2 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
F. Colic	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
G. Ulceration of intestines	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
H. Duodenal ulcer	4	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	..	..	..	..	..	..
106. Ankylostomiasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
107. Other intestinal parasites	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
108. Appendicitis	7	..	..	..	..	..	..	..	..	..	2	..	1	2	..	..	2	..	..	..	..	..
109. A. Hernia	5	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	..	..	1	..	..
B. Intestinal obstruction	4	1	..	2	3	..	..	..	..	3	..	..	1	..	..	..	..	..	..	..	..	..
110. Other diseases of the intestines	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
111. Acute yellow atrophy of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
112. Hydatid of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
113. A. Cirrhosis of the liver (not returned as alcoholic)	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	3	2	..	3
B. Cirrhosis of the liver (returned as alcoholic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of liver and gall bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
114. Biliary calculi	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
115. Other diseases of the liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
116. A. Infarction of spleen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the spleen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
117. Peritonitis (cause unstated)	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
118. A. Abdominal abscess, subphrenic abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the digestive system	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..

TABLE 1.—CONTINUED.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
VI.—NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA																						
119. Acute nephritis	11	..	..	..	..	2	..	..	..	2	2	1	1	1	..	..	2	2	..	..	..	1
120. A. Bright's disease	27	..	..	..	..	..	..	..	..	..	..	..	1	1	..	7	3	5	6	4	..	3
B. Nephritis (unqualified), 10 years and over, and Uræmia	8	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	3	1	1	..	1
121. Chyluria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
122. A. Abscess of kidney	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Cystic disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Suppression of urine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other diseases of the kidney and annexa	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..
123. Calculi of the urinary passages	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
124. Diseases of the bladder	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..
125. A. Perineal abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the urethra, etc.	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
126. Diseases of the prostate	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
127. Non-venereal diseases of male genital organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
128. A. Menorrhagia (non-puerperal)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other uterine hæmorrhage (non-puerperal)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
129. Uterine tumour (non-cancerous)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
130. A. Disorders of menstruation (except menorrhagia)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the uterus	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1

131. Ovarian cyst, tumour (non-cancerous)	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
132. A. Diseases of ovary (excluding ovarian tumour)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the female genital organs	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..
133. Non-puerperal diseases of the breast (non-cancerous)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VII.—THE PUERPERAL STATE.																						
134. A. Abortion	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
B. Hæmorrhage of pregnancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Uncontrollable vomiting	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Ectopic gestation	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
E. Other accidents of pregnancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
135. Puerperal hæmorrhage	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
136. Other accidents of childbirth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
137. Puerperal fever	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
138. A. Puerperal nephritis & uræmia	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..
B. Puerperal albuminuria and Bright's disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Puerperal convulsions	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
139. A. Puerperal phlegmasia alba dolens, and phlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Puerperal embolism & sudden death	3	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..
140. Puerperal insanity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of the breast	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.																						
142. A. Senile gangrene	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..
B. Noma, Gangrene of mouth	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
C. Noma pudendi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other gangrene	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2
143. Carbuncle, boil	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
144. A. Phlegmon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Acute abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 1.—CONTINUED.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																				
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	55 to 60
145. A. Ulcer, Bedsore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Eczema	2	..	..	..	..	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
C. Pemphigus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other diseases of integumentary system	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
IX.—DISEASES OF THE BONES & OF THE ORGANS OF LOCOMOTION.																						
146. Diseases of the bones	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
147. Diseases of the joints	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
148. Amputations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of locomotor system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
X.—MALFORMATIONS.																						
150. A. Congenital hydrocephalus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Phimosis	1	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
C. Congenital malformation of heart	2	..	1	1	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
D. Other congenital malformations	5	4	1	..	5	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..
XI.—DISEASES OF EARLY INFANCY.																						
151. A. Premature birth	63	62	1	..	63	..	..	..	..	63	..	..	..	..	..	..	..	..	..	..	..	..
B. Infantile atrophy, debility, and marasmus	46	38	6	2	46	..	..	..	..	46	..	..	..	..	..	..	..	..	..	..	..	..
C. Icterus neonatorum	6	5	..	1	6	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..
D. Sclerema and œdema neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

	E. Want of breast milk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
152.	A. Diseases of umbilicus, &c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Atelectasis	4	4	..	..	4	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..
	C. Injuries at birth	3	3	..	..	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..
	D. Cyanosis neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
153.	Lack of care	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	XII.—OLD AGE.																						
154.	A. Senile dementia	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	5	..	2
	B. Senile decay	87	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	35	42	8	1
	XIII.—AFFECTIONS PRODUCED BY EXTERNAL CAUSES.																						
155.	Suicide by poison	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
156.	,, asphyxia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
157.	,, hanging or strangulation	4	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	1	..	..	..	1
158.	,, drowning	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
159.	,, firearms	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
160.	,, cutting or piercing instruments	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..
161.	,, jumping from high place	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
162.	,, crushing	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
163.	Other suicides	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164.	Poisoning by food	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
165.	Other acute poisonings	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..
166.	Conflagration	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
167.	Burns (conflagration excepted)	14	..	..	2	2	3	3	2	1	11	3	..	..	..	..	..	..	..	..	..	..	..
168.	Absorption of deleterious gases (conflagration excepted)	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
169.	Accidental drowning	14	..	..	..	..	..	..	..	..	..	..	..	1	1	3	3	2	1	3	..	..	1
170.	Injury by firearms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
171.	,, cutting or piercing instruments	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
172.	,, fall	16	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	4	4	1	3	1	4
173.	,, in mines and quarries	3	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	1
174.	,, by machines	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..

TABLE 1.—CONTINUED.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
175. Injury by other crushing (vehicles railways, landslides, &c)	8	..	..	..	..	1	..	..	..	1	..	..	3	..	..	..	..	1	3	..	..	..
176. ,, animals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
177. Starvation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178. Excessive cold	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Effects of heat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
180. Lightning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
181. Electricity (lightning excepted)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
182. Homicide by firearms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
183. ,, cutting or piercing instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
184. ,, other means	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
185. Fractures (cause not specified)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
186. Other violence	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..
XIV.—ILL-DEFINED CAUSES.																						
187. Dropsy	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
188. A. Syncope (aged 1 year and under 70)	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	..	..	1
B. Sudden death (not otherwise defined)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
189. A. Heart failure (aged 1 year and under 70)	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	4	..	..	..
B. Atrophy, debility, marasmus (aged 1 year and under 70)	6	..	..	..	..	5	..	..	..	5	..	..	..	..	..	1	..	..	..	..	..	..
C. Teething	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Pyrexia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
E. Other ill-defined deaths	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
F. Cause not specified	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..
TOTALS	1752	194	58	104	356	134	44	31	23	588	53	21	42	48	99	131	165	195	254	137	19	93

TABLE 2.—DEATHS DURING 1912: CAUSES AND WARD DISTRIBUTION.

CAUSES OF DEATH.	WARDS.															Total.	Deaths in Institutions in the Boro'.	
	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Unknown.		Residents.	Non-Residents.
All Causes { Certified	155	114	87	120	134	118	138	85	130	74	148	174	101	84	9	1671	77	7
All Causes { Uncertified	9	3	7	2	6	10	7	2	10	7	5	5	4	4	..	81	..	..
Enteric Fever	..	1	..	..	..	..	..	..	1	..	..	1	1	1	..	5	1	..
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..
Measles	5	5	4	11	5	3	7	1	2	2	5	5	5	4	..	64	..	..
Scarlet Fever	1	1	..	..	1	..	..	1	..	1	..	..	..	1	..	6	2	..
Whooping Cough	4	2	..	3	1	4	5	5	4	2	4	8	6	3	..	51	..	..
Diphtheria and Croup	..	..	..	1	..	..	..	..	..	1	1	1	2	..	..	6	..	..
Influenza	1	..	2	..	4	2	..	2	4	1	4	3	1	..	..	24	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	..
Poliomyelitis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..
Phthisis (Pulmonary Tuberculosis)	15	12	7	13	14	8	14	7	13	7	14	20	11	12	1	168	1	..
Tuberculous Meningitis	1	2	..	2	1	..	2	1	1	..	1	2	3	..	..	16	..	..
Other Tuberculous diseases	2	2	2	1	4	1	1	1	2	..	3	2	1	4	1	27	1	..
Cancer, Malignant Disease	6	5	1	9	7	11	10	11	2	1	5	5	2	3	..	78	3	1
Rheumatic Fever	..	1	..	..	..	..	..	..	1	..	..	..	..	2	..	4	..	..
Bronchitis	23	10	10	2	19	13	8	3	22	6	15	21	5	7	1	165	..	..
Pneumonia (all forms)	20	9	3	12	9	11	18	3	6	7	9	17	7	4	2	137	3	..
Other diseases of Respiratory organs	2	2	..	1	4	..	1	1	..	1	5	3	3	2	..	25	2	..
Diarrhœa and Enteritis	3	..	1	3	..	2	5	2	4	1	3	6	..	2	..	32	2	..
Appendicitis and Typhlitis	..	..	..	..	1	..	..	..	1	..	2	1	1	..	1	7	6	1
Cirrhosis of Liver	2	1	1	1	..	1	..	1	..	1	1	..	..	1	..	10	2	..
Alcoholism	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	2	..	..
Nephritis and Bright's Disease	6	4	2	3	2	2	3	2	2	3	5	5	3	4	.	46	1	1
Puerperal Fever	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	2	..	..
Other Accidents and Diseases of Pregnancy and Parturition	1	..	..	1	..	.	..	..	2	..	..	2	1	2	..	9	2	..
Congenital Debility & Malformation, including Premature Birth	11	7	9	1	6	10	14	2	12	4	18	13	7	8	..	122	1	..
Violent deaths, excluding Suicide	4	4	6	5	6	4	7	2	10	1	6	4	4	2	..	65	25	2
Suicide	..	..	1	..	3	1	..	..	..	1	2	1	..	1	1	11	..	..
Other causes	57	48	44	53	53	54	49	41	50	41	50	59	42	25	2	668	24	2
Total	164	117	94	122	140	128	145	87	140	81	153	179	105	88	9	1752	77	7

TABLE 3.—POPULATION, BIRTHS, AND DEATHS FOR 1912 AND PREVIOUS YEARS.

(L.G.B. TABLE I.)

Year.	Population estimated to middle of each year.	Births.			Total Deaths registered in the Borough.		Transferable Deaths		Net Deaths belonging to the Borough.			
		Uncorrected Number.	Net.				Of Non-Residents registered in the Borough.	Of Residents not registered in the Borough.	Under 1 year of age.		At all ages.	
			Number.	* Rate.	Number.	* Rate.			Number.	Rate per 1,000 Net Births.	Number.	* Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1907	105,659	3276	..	..	1717	16.3	..	..	..	..	..	..
1908	106,448	3481	..	..	1598	15.0	..	..	..	..	..	..
1909	107,244	3388	..	..	1597	14.9	..	..	..	..	..	..
1910	108,045	3404	..	..	1451	13.4	..	..	..	..	..	..
1911	108,844	3279	3300	30.3	1687	15.5	13	216	484	147	1890	17.4
1912	109,678	3322	3352	30.6	1550	14.1	18	220	356	106	1752	16.0

*Rates in Columns 5, 7, and 13 calculated per 1,000 of estimated population. For years before 1911 some of the corrected rates are not available.

NOTE.—The deaths included in Column 6 of this Table are the whole of those registered during the year as having actually occurred within the Borough. The deaths included in Column 12 are the number in Column 6, corrected by the subtraction of the number in Column 8, and the addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1 year included in the number given in Column 8, and by addition of the deaths under 1 year included in the number given in Column 9.

" Transferable Deaths " are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence in South Shields, *e.g.*, casuals, are not included in Columns 8 or 9, except in certain instances under 3 (*b*) below. The number of transferable deaths of " non-residents " which have been deducted is stated in Column 8, and the number of deaths of " residents " registered outside the Borough which have been added in calculating the net death-rate, is stated in Column 9.

The following special cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are to be referred (*a*) to the district of residence, under the general rule ; (*b*) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known ; (*c*) failing this, to the district where death occurred, if known ; and (*d*) failing this, to the district where the body was found.

TABLE 4.—BIRTH-RATES, INFANT MORTALITY RATES, AND DEATH-RATES FROM VARIOUS CAUSES, 1871-1912.

(All Rates since 1901 have been re-calculated.)

YEAR.	Population.	Birth-rate.	Death-rate.	PRINCIPAL EPIDEMIC DISEASES.								Phthisis.	Other Tuberculous Diseases.	Cancer.	Bronchitis.	Pneumonia.	Pleurisy.	Influenza.	Deaths under 1 year per 1,000 Births.
				Total.	Smallpox.	Measles.	Scarlet Fever.	†Diphtheria	Whooping Cough.	"Fever."	‡Diarrhœa.								
Mean 1871-1880	..	**43·1**	**25·5**	**6·0**	**·86**	**·42**	**1·44**	**·12**	**·78**	**·79**	**1·59**	**1·91**	..	..	..	..	..	..	**164**
Mean 1881-1890	..	**38·8**	**20·5**	**2·3**	**·01**	**·34**	**·45**	**·10**	**·44**	**·19**	**·78**	**1·84**	..	..	..	..	..	..	**140**
1891	78,920	37·4	22·1	2·85	...	·90	·11	·29	·61	·20	·73	1·54	·89	·39	2·12	1·81	·01	·41	176
1892	80,530	37·0	19·4	1·62	·01	·30	·12	·10	·33	·20	·56	1·51	1·52	·60	1·76	1·33	·06	·32	143
1893	82,284	35·4	22·4	3·15	·04	·39	·38	·06	·36	·35	1·56	1·99	1·28	·48	2 22	1·68	·01	·24	180
1894	84,077	35·9	17·3	1·37	...	·19	·39	·05	·11	·20	·43	1·41	·82	·71	1 95	·89	·05	·12	138
1895	85,910	35·1	21·2	3·36	...	·29	·18	·21	·90	·35	1·43	1·65	1·09	·62	3·25	1·48	·06	·49	187
1896	87,784	35·7	18·5	2·49	...	·92	·18	·10	·42	·27	·58	1·61	1·11	·61	1·78	1·15	·04	·05	165
1897	89,699	35·9	17·2	1·83	...	·29	·15	·09	·25	·16	·88	1·40	·92	·59	1·57	·89	·02	·11	154
1898	91,656	37·0	21·5	3·09	...	·57	·25	...	·77	·39	1·11	1·58	·88	·64	1·92	1·80	·01	·46	182
1899	93,657	36 0	20·7	2·33	...	·04	·21	·06	·13	·47	1·41	1·57	·68	·59	1·57	2·16	·03	·30	175
1900	95,703	36·3	21·4	2·32	...	·55	·21	·12	·67	·20	·55	1·83	·79	·73	1·91	1·52	·03	·39	160
Mean 1891-1900	..	**36·1**	**20·1**	**2·45**	**·00**	**·44**	**·22**	**·11**	**·46**	**·28**	**·93**	**1·60**	**1·00**	**·63**	**2·00**	**1·47**	**·03**	**·29**	**166**
1901	97,800	36·8	20·6	3 36	...	·68	·60	·14	·10	·22	1·60	1·63	·71	·68	1·35	1·19	·04	·18	169
1902*	101,801	36·9	19·8	2·66	·04	·93	·38	·06	1·02	·06	·17	1 81	·66	·65	1·36	1·54	·05	·12	149
1903	102,561	35·4	17·6	1·04	·01	·15	·12	·16	·03	·10	·49	1·72	·73	·71	1·70	1·37	·05	·17	132
1904	103,327	35·9	18·9	1·84	·07	·27	·08	·12	·62	·09	·60	1·59	·85	·65	1·69	1·42	·10	·26	144
1905	104,099	33·6	17·1	2·07	·04	·23	·06	·23	·61	·22	·68	1·21	·62	·68	1·56	1·31	·03	·19	145
1906	104,876	33·7	19·0	2·94	...	1·04	·06	·29	·37	·09	1·10	1·58	·72	·68	1·39	1·35	·04	·24	150
1907	105,659	31·0	18·0	1·53	...	·46	·09	·18	·51	·04	·26	1·69	·75	·73	1·43	1·33	·04	·33	133
1908	106,448	32·7	16·8	1·98	...	·30	·08	·22	·46	·08	·85	1·29	·67	·82	1·24	1·04	·06	·37	133
1909	107,244	31·6	16·6	1·50	...	·35	·18	·19	·34	·04	·41	1·21	·63	·73	1·27	1·13	·05	·29	138
1910	108,045	31·5	15·2	1·50	·02	·16	·06	·06	·59	·06	·56	1·25	·70	·87	1·10	1·17	·05	·29	111
Mean 1901-1910	..	**33·9**	**17·9**	**2·03**	**·02**	**·45**	**·17**	**·16**	**·47**	**·10**	**·66**	**1·50**	**·71**	**·72**	**1·41**	**1·28**	**·05**	**·25**	**140**
Mean 1871-1910	..	**38·0**	**21·0**	**3 20**	**·22**	**·41**	**·57**	**·12**	**·54**	**·34**	**·99**	**·7**	..	..	..	..	..	..	**153**
1911	108,844	30·3	17·4	2·07	...	·37	·01	·08	·21	·04	1·36	1·19	·58	·82	1·33	1·56	·03	·26	147
1912	109,678	30 6	16·0	1·39	...	·58	·05	·05	·46	·05	·18	1·53	·39	·71	1·50	1·25	·05	·22	106

* The Borough was extended, November, 1901.

† Since 1891, Membranous Croup has been included under Diphtheria.

‡ Diarrhœa and Enteritis (under 2 years of age) since 1905.

TABLE 5.—DEATHS OF INFANTS UNDER ONE YEAR: CAUSES AND AGES.

(L.G.B. Table IV.)

Causes of Death.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
All Causes..	Certified	76	16	16	6	114	63	54	48	50	329
	Uncertified	12	..	..	1	13	4	4	3	3	27
Smallpox		..	..	..	..	..	..	..	..	..	..
Chickenpox		..	..	..	..	..	..	..	..	..	..
Measles		..	..	..	..	..	..	1	3	2	6
Scarlet Fever		..	..	..	..	..	..	..	..	..	..
Whooping Cough		..	..	..	..	..	5	4	5	5	19
Diphtheria and Croup		..	..	..	..	..	..	..	..	..	..
Erysipelas..................		..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis		..	..	..	..	..	..	2	..	2	4
Abdominal Tuberculosis		..	..	..	..	..	..	..	2	..	2
Other Tuberculous diseases ..		..	..	..	..	..	..	..	1	3	4
Meningitis (*not Tuberculous*) ..		..	..	..	..	..	1	4	3	1	9
Convulsions		11	5	2	1	19	13	7	9	3	51
Laryngitis..................		..	..	..	..	..	..	..	..	..	..
Bronchitis..................		..	1	3	1	5	12	18	14	10	59
Pneumonia (all forms)		..	..	..	..	..	5	4	6	16	31
Diarrhoea		..	..	1	..	1	2	2	2	5	12
Enteritis		1	..	..	1	2	..	1	..	..	3
Gastritis		..	1	..	..	1	1	..	..	..	2
Syphilis		1	..	1	..	2	2	4	..	..	8
Rickets		..	..	..	..	..	..	..	..	..	..
Suffocation, Overlying		..	..	1	..	1	..	..	..	..	1
Injury at birth		3	..	..	..	3	..	..	..	..	3
Atelectasis		4	..	..	..	4	..	..	..	..	4
Congenital Malformations		1	1	..	..	2	2	2	..	1	7
Premature Birth............		42	5	5	2	54	8	1	..	..	63
Atrophy, Debility & Marasmus		24	3	3	1	31	12	6	2	1	52
Other Causes		1	..	..	1	2	4	2	4	4	16
Total		88	16	16	7	127	67	58	51	53	356

Net Births in the Year :—		Net Deaths in the Year :—	
Legitimate	3,214	Legitimate Infants	332
Illegitimate.......	138	Illegitimate Infants	24

TABLE 6.—DEATHS OF INFANTS UNDER ONE YEAR: CAUSES AND WARD DISTRIBUTION.

CAUSES OF DEATH.	WARDS.															Total.
	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Unknown.	
ALL CAUSES—																
Certified	33	22	15	10	23	23	35	6	31	7	41	45	19	19	...	329
Uncertified	1	1	3	...	1	4	4	...	4	4	3	2	...	...	...	27
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	1	...	.	...	1	...	1	...	1	1	...	1	...	6
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	1	1	...	2	..	1	3	1	2	1	2	3	1	1	...	19
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	1	...	2	...	...	...	...	...	...	...	1	...	...	...	4
Abdominal Tuberculosis	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	2
Other Tuberculous diseases	...	2	..	...	1	...	1	...	...	...	...	...	...	...	...	4
Meningitis (*not Tuberculous*)	...	...	...	...	1	1	1	...	1	...	3	...	1	1	..	9
Convulsions	5	5	3	...	6	5	4	...	7	2	4	5	3	2	...	51
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	8	5	3	...	7	4	3	1	8	...	8	8	2	2	...	59
Pneumonia (all forms)	4	1	1	2	...	1	8	...	...	1	3	6	2	2	...	31
Diarrhœa	...	...	...	2	...	1	2	2	1	1	1	2	...	...	...	12
Enteritis	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	3
Gastritis	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2
Syphilis	2	1	...	...	...	1	...	...	...	...	...	3	...	1	...	8
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, Overlying	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Injury at birth	...	...	...	...	...	1	...	...	...	...	1	1	...	...	...	3
Atelectasis	...	...	...	...	...	...	...	...	1	...	1	1	1	...	...	4
Congenital Malformations	...	1	...	...	...	...	3	1	...	...	1	...	...	1	...	7
Premature Birth	5	4	3	...	3	5	8	1	7	2	8	7	6	4	...	63
Atrophy, Debility and Marasmus	6	2	6	1	3	5	3	...	5	2	9	6	1	3	...	52
Other Causes	2	...	1	...	3	1	1	...	1	2	2	2	1	...	...	16
Total Deaths under one year	34	23	18	10	24	27	39	6	35	11	44	47	19	19	...	356
Number of Births during 1912	212	265	160	178	197	245	357	114	266	169	408	320	226	235	...	......
Infant Mortality Rate	160	87	113	56	122	110	109	53	132	65	108	147	84	81	...	......
Total Deaths at all ages	164	117	94	122	140	128	145	87	140	81	153	179	105	88	9	1752

TABLE 7.—CASES OF INFECTIOUS DISEASE NOTIFIED, AND CASES REMOVED TO HOSPITAL, IN SOUTH SHIELDS DURING THE YEAR 1912, CLASSIFIED ACCORDING TO WARD AND AGE.

(L.G.B. Table II.)

Notifiable Diseases.	Cases notified in whole Borough.								Total Cases notified in each Ward.															No. of Cases removed to Hospital from each Ward.														
	At all Ages.	At following Ages—Years.																																				
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Unknown.	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Totals.
Smallpox	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	62	...	24	34	2	1	1	...	1	4	...	8	...	4	1	9	1	10	3	5	9	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	65	1	...	1	5	21	25	12	2	5	3	5	1	7	2	4	2	9	7	9	5	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	273	1	81	177	6	8	...	...	15	14	8	21	13	12	18	22	18	30	50	15	17	20	...	12	9	7	14	11	12	13	13	16	16	47	15	15	16	216
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	18	...	1	2	6	7	2	...	...	1	1	...	...	...	4	2	1	...	2	3	2	2	...	...	1	1	...	...	...	4	2	...	...	2	3	1	1	15
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	3	...	...	...	1	2	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Meningitis	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Poliomyelitis	3	...	3	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	478	...	9	146	101	151	66	5	41	29	30	42	44	35	48	20	39	18	45	42	24	18	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	904	2	118	360	123	190	94	17	59	55	42	76	58	61	74	58	62	67	107	74	57	51	3	12	11	8	14	11	12	17	16	16	16	49	18	16	17	233

TABLE 8.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.

(a) VISITS.

Nature of Visits.	W. Clark.	R. W. Weir.	R. Ayre.	W. Hill.	Totals.
General District Inspection	4196	4205	5762	4065	18228
Inspection of Works in Progress	720	33	739	713	2205
Interviews and Appointments	..	219	..	77	296
Investigation of Complaints of Nuisances	103	75	101	98	377
Smoke Observations	..	..	11	..	11
Testing Drains	31	4	24	21	80
Inspection of Seamen's Lodging Houses	..	98	13	63	174
,, Common Lodging Houses	..	13	63	26	102
,, Houses-let-in Lodgings	..	..	27	1	28
,, Van Dwelling	..	..	..	7	7
,, Factories	26	2	1	12	41
,, Workshops	113	9	24	124	270
,, Workplaces	2	..	..	..	2
,, Homeworkers' Premises	..	4	..	5	9
,, Bakehouses	35	..	6	..	41
,, Fried Fish Shops	67	..	14	..	81
,, Tripery	..	..	4	..	4
,, Gut-scraping Places	..	..	1	..	1
,, Sausage-making Places	..	..	2	..	2
,, Fish-curing Places	1	..	1	..	2
,, Smoke House	..	..	2	..	2
,, Marine Store	..	..	3	..	3
,, Stables	89	..	177	25	291
Taking Samples with Food Inspector	150	..	..	..	150
Infectious Diseases : Visits on Notification of cases, on Removal to Hospital, or on Disinfection of premises	215	251	88	111	665
Visits *re* : Home-treated cases	56	38	12	23	129
School-reported cases	279	394	19	22	714
Contacts—Smallpox	20	1	18	17	56
Scarlet Fever	..	1	..	..	1
Typhoid Fever	..	..	1	..	1
Plague	1	..	2	1	4
Deaths from Phthisis	30	50	34	54	168
Total Visits	6134	5397	7149	5465	24145

TABLE 9.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.

(b) PRELIMINARY NOTICES ISSUED.

Nature of Defects.	W. Clark.	R. W. Weir.	R. Ayre.	W. Hill.	Totals.
Dwellings: improperly converted into tenements	.	..	..	2	2
tenements unfit for habitation	..	..	8	15	23
defective floors, walls, roofs, spouting, ventilation, lighting, etc	33	39	46	88	206
smoke nuisance	1	..	..	..	1
damp	..	5	5	14	24
neglect of cleanliness	2	3	3	12	20
absent water supply	1	4	2	4	11
Van-Dwelling: dirty, overcrowded, etc	..	..	..	2	2
Seamen's and Common Lodging Houses:					
defective floors, walls, drains, etc	..	..	6	1	7
damp	.	..	1	..	1
Houses-let-in-Lodgings : defective walls, roof, spouting	..	..	3	1	4
neglect of cleanliness	..	..	2	..	2
Factories, Workshops, etc.:					
defective floors, walls, lighting, ventilation, etc.	1	..	..	8	9
sanitary accommodation insufficient	3	..	..	..	3
neglect of cleanliness	..	..	2	5	7
Public Houses and Clubs:					
defects in drains, urinals, w.c.'s, etc	8	3	3	1	15
sanitary accommodation insufficient	1	..	..	..	1
Stables: structural defects—absence of manure stead, drainage, etc	.	..	..	..	..
neglect of cleanliness—accumulation of manure,	7	..	7	1	15
etc.	..	2	4	..	6
Outbuildings: dilapidated, dangerous	4	13	5	33	55
neglect of cleanliness	3	7	3	13	26
Cellar : insanitary	..	..	1	2	3
Yards : defective and unpaved	33	18	41	47	139
neglect of cleanliness	3	7	11	11	32
other nuisances in yards	4	7	17	3	31
Privy Middens : defective and insanitary	3	..	1	3	7
Privies : insufficient provision	..	..	5	1	6
disrepair	52	77	43	27	199
neglect of cleanliness	24	54	11	26	115
Ashpit : improper position of	..	1	..	..	1
W.C.'s : defective structure or fittings	7	1	12	..	20
defective "Fowlers"	..	..	3	..	3
neglect of cleanliness	..	2	7	..	9
Wash-up : defective traps, waste-pipes, etc.	40	14	26	38	118
Bath : untrapped and defective waste-pipes	4	..	..	..	4
Lavatory : do. do.	3	..	..	..	3
Rain-water Cistern (underground) : foul, defective, etc	6	8	6	9	29
Drains : absence of	1	..	..	3	4
choked	25	19	21	27	92
defective drains, gullies, traps, etc.	19	5	16	19	59
Other matters : keeping animals	1	1	8	2	12
accumulation of refuse, foul water, etc.	3	2	14	11	30
other nuisances	1	..	..	4	5
TOTAL DEFECTS	293	292	343	433	1361
Preliminary notices issued during the year to 567 owners	238	205	278	336	1057
,, ,, to 485 occupiers	55	87	65	97	304
Statutory notices issued during the year to 20 owners	25	4	8	3	40
Letters sent out	49	53	44	37	183

TABLE 10.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.

(c) STRUCTURAL IMPROVEMENTS EFFECTED.

NATURE OF WORK.	W. Clark.	R. W. Weir.	R. Ayre	W. Hill.	TOTALS.
Dwellings and Lodging Houses :					
rooms and cellars closed	..	14	118	50	182
rooms demolished	..	..	55	12	67
repairs to walls, roofs, floors, spouting, etc.	23	109	60	240	432
Factories, Workshops, etc.					
repairs to walls, floors, roofs, spouting, etc.	2	..	3	..	5
Stables : manure steads repaired or rebuilt	2	..	2	..	4
drain repaired	1	..	..	..	1
floor cemented	..	..	1	..	1
Wash-houses : provided or built	..	..	1	3	4
rebuilt or repaired	7	2	..	2	11
floors relaid or repaired	10	5	12	19	46
Outbuildings : provided	..	4	..	..	4
rebuilt or repaired	12	15	..	19	46
Yards and Areas : relaid	27	15	17	25	84
repaired	3	15	5	5	28
Ashpit : abolished	1	2	..	..	3
Privy Receptacles : newly provided	1	..	3	..	4
provided in place of privy middens (5)	4	..	1	..	5
abolished	..	..	1	..	1
rebuilt or repaired	7	48	3	12	70
W.C.'s : newly provided (complete)	6	1	8	5	20
provided in place of privy middens (2)	..	..	1	1	2
,, ,, privy receptacles (5)	1	2	2	..	5
,, ,, pail closets (2)	..	..	2	..	2
,, ,, trough closet (1)	..	..	2	..	2
basins, cisterns, etc., replaced or repaired	7	3	8	6	24
Dustbins : provided (fixed, 6 ; portable, 6)	4	2	2	4	12
Urinals : repaired	2	1	1	1	5
Baths : waste-pipes or traps provided	3	..	..	..	3
Lavatories : basins provided	3	..	..	1	4
waste-pipes or traps provided	3	..	..	2	5
Rain-water Cisterns (underground) :					
filled in	6	11	8	5	30
cleaned out	2	2	..	1	5
repaired	8	1	..	..	9
Drains : abolished	2	..	..	5	7
provided	5	8	1	5	19
relaid	18	..	14	11	43
repaired	4	1	15	19	39
gullies, traps, etc., provided or renewed	40	15	37	18	110
Washups : abolished	..	..	..	2	2
of metal, replaced by stoneware	3	5	10	17	35
newly provided (complete)	7	6	4	..	17
traps, waste-pipes, etc., provided or repaired	36	23	20	26	105
TOTAL IMPROVEMENTS	260	310	417	516	1503

TABLE 11.—SUMMARY OF METEOROLOGICAL OBSERVATIONS, 1912, taken at 9 a.m. daily, at the North Marine Park and Health Department, South Shields.

Month.	Barometer (corrected for elevation, temperature, &c.)	Air Temperature.									Earth Temperature.		Relative Humidity.	Rainfall (in inches).				Wind.									
		Average.					Absolute.									Most in a day.			Direction at 9 a.m.: Number of days.								
		Dry Bulb.	Wet Bulb.	Maximum.	Minimum.	Mean.	Maximum	Day of Month.	Minimum.	Day of Month.	At 1 Foot Depth.	At 4 Feet Depth.		Total Fall.	No. of days rain fell .01″ or more.	Amount.	Day of Month.	Average Daily Mileage.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
January ..	29.901	38.9	37.3	42.9	36.1	39.3	55.2	1	25.0	29	38.7	43.9	86	2.22	19	0.36	8	412	5	..	1	3	7	4	7	1	3
February ..	29.592	40.5	38.8	44.9	36.9	40.8	56.1	28	**15.2**	**4**	39.0	42.1	85	2.06	21	0.58	19	320	1	3	2	..	11	4	5	1	2
March	29.532	45.3	42.6	51.1	40.1	45.5	61.7	25	31.1	21	43.0	44.7	81	1.75	22	0.41	4	330	1	..	..	1	10	3	14	1	1
April	30.101	48.5	44.6	53.3	40.8	47.6	65.7	20	29.8	11	48.5	47.0	74	0.12	5	0.05	28	359	5	5	4	2	1	2	8	3	..
May	29.933	53.3	48.8	58.4	45.6	52.4	68.8	7	39.4	13	53.9	51.4	72	2.38	16	0.72	15	290	2	8	3	2	4	2	8	1	1
June	29.738	56.3	53.3	61.5	51.1	56.3	**73.4**	23	45.0	17	56.6	53.5	81	4.55	24	0.64	3	271	4	5	4	2	5	4	3	2	1
July	29.916	58.5	55.5	62.8	53.1	58.1	73.3	26	48.4	6	59.0	55.9	81	3.67	19	0.73	31	305	8	9	3	1	3	5	1	..	1
August	29.633	55.7	52.8	60.7	50.2	55.5	68.9	8	40.4	3	55.1	55.4	81	4.18	22	0.59	1	311	3	3	3	1	4	3	8	5	1
September	30.162	53.3	50.0	58.4	47.7	53.1	68.3	16	40.3	9	52.2	53.7	79	1.69	12	0.41	30	356	5	2	3	4	3	..	9	1	3
October ..	29.811	47.7	46.0	55.4	42.5	48.6	63.4	14	34.4	23 & 26	47.0	51.1	88	3.67	17	**0.97**	**26**	292	2	3	..	1	9	7	9	..	..
November ..	29.854	43.5	41.5	48.9	39.8	44.1	57.4	7	22.3	30	42.7	48.0	85	1.55	20	0.50	11	363	3	1	..	..	3	1	17	3	2
December	29.689	42.3	40.3	47.6	37.6	42.5	58.3	13	22.8	1	39.5	44.8	84	1.28	13	0.31	15	344	..	..	..	..	8	10	12	..	1
AVERAGES ..	29.822	48.7	46.0	53.8	43.5	48.7	..	..	..	..	47.9	49.3	81	..	..	..	..	329	..	..	..	..	..	..	..	..	..
TOTALS ..	..	..	..	..	..	..	..	..	..	..	..	..	..	29.12	210	..	..	..	39	39	23	17	68	45	101	18	16

The total rainfall at the Corporation Yard was 30·07 inches.